S. HRG. 100-259

IROQUOIS GAS TRANSMISSION SYSTEM

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY REGULATION
AND CONSERVATION

OF THE

COMMITTEE ON
ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON THE

IROQUOIS GAS TRANSMISSION SYSTEM—NEED, ALTERNATIVES, AND ENVIRONMENTAL IMPACTS

SANDYHOOK, CT, JULY 20, 1987

Printed for the use of the
Committee on Energy and Natural Resources

U.S. GOVERNMENT PRINTING OFFICE
77-718 WASHINGTON : 1987

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

S 311 11

COMMITTEE ON ENERGY AND NATURAL RESOURCES

J. BENNETT JOHNSTON, Louisiana, *Chairman*

DALE BUMPERS, Arkansas
WENDELL H. FORD, Kentucky
HOWARD M. METZENBAUM, Ohio
JOHN MELCHER, Montana
BILL BRADLEY, New Jersey
JEFF BINGAMAN, New Mexico
TIMOTHY E. WIRTH, Colorado
WYCHE FOWLER, Jr., Georgia
KENT CONRAD, North Dakota

JAMES A. McCLURE, Idaho
MARK O. HATFIELD, Oregon
LOWELL P. WEICKER, Jr., Connecticut
PETE V. DOMENICI, New Mexico
MALCOLM WALLOP, Wyoming
FRANK H. MURKOWSKI, Alaska
DON NICKLES, Oklahoma
CHIC HECHT, Nevada
DANIEL J. EVANS, Washington

Daryl H. Owen, *Staff Director*
D. Michael Harvey, *Chief Counsel*
Frank M. Cushing, *Staff Director for the Minority*
Gary G. Ellsworth, *Chief Counsel for the Minority*

Subcommittee on Energy Regulation and Conservation

HOWARD M. METZENBAUM, Ohio, *Chairman*

BILL BRADLEY, New Jersey
JEFF BINGAMAN, New Mexico
WYCHE FOWLER, Jr., Georgia

DON NICKLES, Oklahoma
LOWELL P. WEICKER, Jr., Connecticut
DANIEL J. EVANS, Washington

J. Bennett Johnston and James A. McClure are Ex Officio Members of the Subcommittee
Allen Stayman, *Professional Staff Member*

CONTENTS

STATEMENTS

Page
Aston, Phillip T., senior vice president and general manager, Northeast Utilities ... 169
Assard, Leonard J., first selectman, Bethlehem, CT ... 79
Bates, Janet, chairman, Lake Waramaug Task Force ... 178
Brown, Horace H., acting undersecretary for comprenhensive planning, Office of Poliy and Management, State of Connecticut ... 64
Butterly, Sean, State representative, Woodbury, CT ... 176
Cody, Richard, first selectman, New Milford, CT ... 177
Dodd, Hon. Christopher J., a U.S. Senator from the State of Connecticut ... 18
Frauenhofer, Victor, Connecticut Natural Gas Corp ... 167
Garriery, Eugene, chairman, Newtown Opposition to Pipeline Encroachment, Newtown, CT ... 181
Givotovsky, Sergei, Northern Valley Environmental Council ... 111
Herskowitz, Carol A., State representative, Southbury, CT ... 75
Jagoe, Alberta, mayor, Milford, CT ... 78
Johnson, Hon. Nancy L., a U.S. Representative from the State of Connecticut . 20
Keller, Kenneth, first selectman, Brookfield, CT ... 94
Kumins, Lawrence, specialist in energy policy, Congressional Research Service ... 24
Larson, John H., president and chief executive officer, Southern Connecticut Gas Co ... 159
Lieberman, Joseph I., Attorney General, State of Connecticut ... 65
MacKenzie, Broderick, Newton, CT ... 182
Meyers, Alice, State representative, Newtown, CT ... 175
Moeller, Robert, Housatonic Valley Association, Inc ... 96
Muesa, Anne Marie, chairman, GASP Coalition ... 178
Pacowta, Michael, mayor, Town of Shelton, CT ... 92
Pawlowski, Lillian, Shelton, CT ... 179
Perkins, Jim, New Milford, CT ... 180
Petty, David, farmer, northwest Connecticut ... 182
Ramsey, Joseph E., vice president, Tennessee Gas Transmission Co., accompanied by David Ellis ... 118
Reid, Robert, president, Iroquois Gas Transmission System; accompanied by Jim Rooney, president of Alberta Northeast Gas, and vice president, J. McCoskey & Associates; and Derrick Kenwood, vice president, Trans Canada Pipelines ... 113
Rowland, Hon. John G., a U.S. Representative from the State of Connecticut, accompanied by Larry Kumins, specialist in energy policy, Congressional Research Service ... 21
Schmidle, Mae, State representative, Newtown, CT ... 174
Weicker, Hon. Lowell P., Jr., a U.S. Senator from the State of Connecticut ... 1

APPENDIX

Additional material submitted for the record ... 185

IROQUOIS GAS TRANSMISSION SYSTEM

MONDAY, JULY 20, 1987

U.S. Senate,
Subcommittee on Energy Regulation
and Conservation,
Committee on Energy and Natural Resources,
Sandyhook, CT.

The subcommittee met, pursuant to notice, at 9:02 a.m., at Newtown High School, 12 Berkshire Road, Route 34, Sandyhook, CT, Hon. Lowell P. Weicker, Jr., presiding.

OPENING STATEMENT OF HON. LOWELL P. WEICKER, JR., A U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator **Weicker**. The Subcommittee on Energy Regulation and Conservation of the United States Senate Committee on Energy and Natural Resources is meeting today to receive testimony on the supply of natural gas to the State of Connecticut on the Iroquois proposal for supplying additional gas, and its impact need and alternatives.

On May 30, 1986, the Iroquois Gas Transmission System applied to the Federal Energy Regulatory Commission, otherwise known as FERC, for approval to construct a major pipeline from Canada through New York, Connecticut and the Long Island Sound to New Jersey. The application was made under a newly established FERC process known as the optional expedited certificate procedure which attempts to provide rapid consideration to pipeline proposals without lengthy analysis of need for the natural gas and alternative methods of supply.

As we are all very aware, the Iroquois proposal has sparked opposition and now we are more concerned with the announcement of the route the pipeline will take through Connecticut. With this new route there are new concerns that need to be addressed and new communities whose citizens have a right to be heard before decisions are set in stone. I am going to submit the remainder of my statement for the record, in order to give as much time as possible for those that came here and gave of their time to be heard. But I will just give a synopsis to the extent that, number one, why these hearings? Because there is now an alternative route that has become the preferred route. It is not sufficient for the companies themselves to say, "Well, this was always part of the plan." It might have been part of the plan, but the people of the State of Connecticut did not know about it and I think the various communities and individuals that are going to be impacted have as much right to be heard on this as was the case with the first round.

Secondly, I want to emphasize that it is the position of this Senator to make certain that all parties will have the opportunity to be heard fairly. It is not my position to use this chair to in any way prejudice the opinions of all those affected, which includes not just the community, the property owners, the energy companies, all those that want to be heard. And indeed, as a member of the Energy Committee, all I can do is to make sure that the rules of the game are the same for everybody, and that integrity and fairness will apply. I don't make the final decision, but I can make certain that honesty and openness will be the trademark of the entire process.

With those very brief remarks, just before we get to the first witness, I have statements for the record, to be introduced into the record by Senator Christopher Dodd and Congresswoman Nancy Johnson.

[The prepared statements of Senator Weicker, Senator Dodd, and Mrs. Johnson follow:]

STATEMENT OF SENATOR LOWELL WEICKER, JR.
HEARING OF THE UNITED STATES SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, SUBCOMMITTEE ON REGULATION AND CONSERVATION
NEWTOWN, CONNECTICUT

JULY 20, 1987

THIS HEARING WILL COME TO ORDER. THE SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION OF THE U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES IS MEETING TODAY TO RECEIVE TESTIMONY ON THE SUPPLY OF NATURAL GAS TO THE STATE OF CONNECTICUT; ON THE IROQUOIS PROPOSAL FOR SUPPLYING ADDITIONAL GAS, AND ITS IMPACT, NEED AND ALTERNATIVES.

ON MAY 30, 1986 THE IROQUOIS GAS TRANSMISSION SYSTEM APPLIED TO THE FEDERAL ENERGY REGULATORY COMMISSION, OTHERWISE KNOWN AS FERC, FOR APPROVAL TO CONSTRUCT A MAJOR PIPELINE FROM CANADA THROUGH NEW YORK, CONNECTICUT AND ACROSS LONG ISLAND SOUND TO NEW JERSEY. THE APPLICATION WAS MADE UNDER A NEWLY ESTABLISHED FERC PROCESS KNOWN AS THE OPTIONAL EXPEDITED CERTIFICATE PROCEDURE WHICH ATTEMPTS TO PROVIDE RAPID CONSIDERATION TO PIPELINE PROPOSALS WITHOUT LENGTHY ANALYSIS OF NEED FOR THE NATURAL GAS AND ALTERNATIVE METHODS OF SUPPLY.

AS WE ARE ALL VERY AWARE, THE IROQUOIS PROPOSAL HAS SPARKED OPPOSITION AND, NOW, EVEN MORE CONCERN WITH THE ANNOUNCEMENT OF A NEW ROUTE THE PIPELINE WILL TAKE THROUGH CONNECTICUT. WITH THIS NEW ROUTE COME NEW CONCERNS THAT NEED TO BE ADDRESSED, NEW COMMUNITIES WHOSE CITIZENS HAVE A RIGHT TO BE HEARD BEFORE DECISIONS ARE SET IN STONE.

WITH THIS HEARING, THIS COMMITTEE, THE PEOPLE OF CONNECTICUT AND VERY SOON, FERC, WILL HAVE IMPORTANT INFORMATION WITH WHICH TO ASSESS THE ISSUES INVOLVED IN THIS NEW PREFERRED PIPELINE ROUTE AS WELL AS THE OVERALL QUESTION OF NATURAL GAS SUPPLY TO OUR STATE. THE ORIGINAL CONTROVERSY PROMPTED A PUBLIC HEARING IN TORRINGTON IN OCTOBER OF LAST YEAR. THE PROPOSAL HAS BEEN WATCHED CAREFULLY IN CONGRESS AND I HAVE DISCUSSED THE ISSUE WITH THE CHAIRMAN OF FERC, MARTHA HESSE, EACH TIME SHE HAS APPEARED BEFORE THIS COMMITTEE. MORE THAN 1200 CITIZENS, GROUPS, COMMUNITIES, BUSINESSES, STATE AND FEDERAL AGENCIES HAVE REGISTERED AS INTERESTED PARTIES WITH FERC REGARDING THIS ONE PROPOSAL.

THE IROQUOIS PIPELINE PROPOSAL HAS SERVED AS A FOCAL POINT FOR A SURPRISING NUMBER OF ISSUES FACING CONNECTICUT TODAY. THIS COUNTRY MAY SOON BE FORCED TO MAKE HARD CHOICES ABOUT THE USE AND CONSERVATION OF ENERGY. THIS STATE IS UNIQUE IN THE VERSATILE APPROACH IT HAS TAKEN IN MEETING ITS ENERGY NEEDS FOR OUR HOMES AND INDUSTRY. THE FUTURE OF NUCLEAR ENERGY MAY BE IN DOUBT BUT

MORE THAN 60 PERCENT OF CONNECTICUT'S ELECTRICITY IS GENERATED FROM THESE POWER PLANTS. THE RISKS OF RELYING ON IMPORTED FOREIGN OIL SUPPLIES ARE KNOWN BUT OVER 60 PERCENT OF CONNECTICUT'S NET ENERGY CONSUMPTION IS STILL IN OIL. THE UNITED STATES HAS TREMENDOUS SUPPLIES OF COAL, BUT TO BUILD A COAL-FIRED POWER PLANT IN THE STATE MAY BE ENVIRONMENTALLY UNACCEPTABLE. NATURAL GAS IS CLEAN, REASONABLY SECURE, USABLE IN HOMES, INDUSTRY, SMALL AND LARGE POWER PLANTS, YET IT IS EXPENSIVE IN CONNECTICUT AND PROPOSALS TO INCREASE THE CAPACITY TO OUR STATE HAS STIRRED A TREMENDOUS DEBATE.

THE ISSUE OF NATURAL GAS SUPPLY IS MULTIFACETED. AMONG CONNECTICUT'S ENERGY POLICIES, ESTABLISHED BY STATUTE, IS AN INTENT TO DIVERSIFY THE STATE'S ENERGY SUPPLY MIX AND, WHERE PRACTICABLE, REPLACE ENERGY RESOURCES VULNERABLE TO INTERRUPTION WITH THOSE LESS VULNERABLE. UTILITY COMPANIES HAVE BEEN ENCOURAGED TO CONDUCT MORE EFFICIENT NATURAL GAS CONSUMPTION AND DEMAND FORECASTING. FERC HAS ESTABLISHED THE OPTIONAL EXPEDITED CERTIFICATE TO PROVIDE RAPID CONSIDERATION AND ISSUANCE OF NEW NATURAL GAS PIPELINE CONSTRUCTION PERMITS. WE KNOW SOME CONNECTICUT UTILITY RATEPAYERS HAVE SAVED MONEY USING NATURAL GAS TO PRODUCE ELECTRICITY. WHEN THE MONTVILLE POWER PLANT CONVERTED FROM OIL TO NATURAL GAS CONSUMERS SAVED MORE THAN $20,000 PER DAY. WHY THEN IS THERE SUCH CONTROVERSY OVER THE IROQUOIS PIPELINE PROPOSAL WHEN WE KNOW, FOR EXAMPLE, THAT NATURAL GAS IS LESS VULNERABLE AND CONTRIBUTES TO THE DIVERSITY OF CONNECTICUT'S ENERGY

CONSUMPTION? THE ANSWER SHOULD COME FROM THE AFFECTED COMMUNITIES AND CITIZENS OF CONNECTICUT. IN THE HEARING TODAY I HOPE WE WILL LEARN OF THE IMPACT, NEED, AND POSSIBILITY FOR ALTERNATIVES TO THE IROQUOIS PROPOSAL.

IT IS VITAL THAT THE DECISION-MAKING PROCESS BE OPEN AND ABOVE BOARD. HAVING LEARNED OF PRIVATE COMMUNICATIONS THAT OCCURRED BETWEEN REPRESENTATIVES OF THE IROQUOIS GAS TRANSMISSION SYSTEM AND THE GENERAL COUNSEL OF FERC, I FILED A MOTION WITH THE COMMISSION TO PERSONALLY INTERVENE IN THE PROCEEDINGS TO URGE A FULL AND COMPLETE PUBLIC CONSIDERATION OF THE IROQUOIS PROPOSAL. A FUNDAMENTAL COMMITMENT I MAKE TO THE CITIZENS OF CONNECTICUT IS THAT THEY WILL RECEIVE EVERY CONSIDERATION OF THEIR CONCERNS THAT THIS SENATOR CAN PROVIDE. THAT COMMITMENT APPLIES TO PIPELINES LIKE ANYTHING ELSE. ENERGY REGULATION MUST BE OPEN TO FULL PUBLIC INPUT, IT MUST HAVE CREDIBILITY, AND IT MUST BE NEVER TAINTED BY SECRECY OR ALLEGATIONS OF UNFAIRNESS. THE PROCEDURES AND PROCESS THAT CONNECTICUT AND THE NATION ESTABLISH TO CONSIDER NEW ENERGY SUPPLIES IS, I BELIEVE, ONE OF THE MOST IMPORTANT ELEMENTS IN THE VITAL AND CONTINUING EFFORT TO OBTAIN ENERGY INDEPENDENCE.

I WANT TO THANK THE GOOD PEOPLE OF NEWTOWN FOR THE OPPORTUNITY TO HOLD THIS HEARING IN THEIR COMMUNITY. LET ME OFFER MY SPECIAL THANKS TO FIRST SELECTMAN JACK ROSENTHAL, STATE REPRESENTATIVE MAE SCHMIDLE AND ALL THE SCHOOL STAFF AND OFFICIALS WHO

HAVE BEEN SO HELPFUL IN ASSISTING ME WITH THE LOGISTICS OF THIS HEARING.

I WOULD ALSO LIKE TO THANK ALL THOSE PEOPLE WHO HAVE EXPRESSED A DESIRE TO BE INCLUDED IN THE ORAL PRESENTATIONS OF THIS HEARING TODAY. AS MUCH AS I WISH WE COULD ACCOMMODATE ALL THE PUBLIC OFFICIALS, CITIZENS AND INTERESTED GROUPS, TIME LIMITATIONS HAVE PREVENTED ME FROM DOING SO. I DO LOOK FORWARD TO STUDYING THE WRITTEN TESTIMONY FROM ALL INTERESTED PARTIES. WRITTEN TESTIMONY MAY BE SUBMITTED AND ACCEPTED INTO THE RECORD UNTIL JULY 27TH.

NEWS

SENATOR LOWELL WEICKER, JR.
CONNECTICUT

303 HART SENATE OFFICE BUILDING • WASHINGTON, D.C. 20510
(202) 224-4041

CHRONOLOGY: IROQUOIS ISSUE AND SENATOR LOWELL WEICKER

May 30, 1986-	Iroquois Gas Transmission System (IGTS) files an application with Federal Energy Regulatory Commission (FERC) for construction of a 350-mile pipeline, from Canada through New York, Connecticut and to New Jersey. The pipeline would provide 400 million cubic feet per day of gas, 40 percent of it to be delivered to Connecticut. IGTS files under a newly established FERC Order 436 for issuance of an Optional Expedited Certificate (OEC). OEC allows for construction of a pipeline without analysis of need or alternatives if all financial risk for the project is borne by the investors and not passed on to the ratepayer.
September 9, 1986-	Weicker questions FERC Chairman nominee Martha Hesse on the concerns of using OEC procedures on the IGTS application. Hesse promises to adhere to the letter of the law and of established procedures of FERC.
October 28, 1986-	Weicker testifies at a public hearing, by FERC, in Torrington. Concern is expressed for the environmental impact of the Iroquois proposal including the examination of need and alternatives. IGTS had proposed, on October 24, an alternate route for the pipeline which would run through a more southern stretch of the state. This route has recently, on May 28, 1987, become the new "preferred route" for IGTS.
February 17, 1987-	Weicker questions FERC Chairman Hesse before the Energy Committee on the consideration of the Iroquois application. Hesse commits to holding environmental hearings in Connecticut in the Commission's development of an Environmental Impact Statement. The hearings have been postponed pending FERC consideration of the Iroquois application and possibly consolidating it with other Northeast pipeline proposals.

July 9, 1987-	Weicker questions FERC Chairman Hesse, before the Energy Committee for renomination, on the issue of the recent filing and of the possible ex-parte communications between IGTS and FERC. Hesse replied that such communications, on procedure, were routine though she regretted that it had occurred.
July 20, 1987-	Weicker chairs Senate Energy and Natural Resources Committee hearing, in Newtown, Connecticut. Hearing focuses on issues regarding the Iroquois natural gas pipeline proposal and of natural gas supply to Connecticut.

UNITED STATES OF AMERICA
Before The
Federal Energy Regulatory Commission

Iroquois Gas Transmission System	) Docket Nos. CP86-523) and CP86-524

MOTION OF
HONORABLE LOWELL P. WEICKER, Jr.
UNITED STATES SENATOR

FOR LEAVE TO INTERVENE
FOR THE TEMPORARY SUSPENSION OF PROCEEDINGS
FOR THE ESTABLISHMENT OF FAIR AND EQUITABLE PROCEDURES

Pursuant to Rules 212 and 214 of the Rules of Practice and Procedure of the Federal Energy Regulatory Commission ("Commission"), Lowell P. Weicker, Jr., United States Senator, ("Senator Weicker") hereby moves: (1) for leave to intervene in the above-referenced proceedings; (2) for the temporary suspension of these proceedings; and (3) for the establishment of fair and equitable procedures. In support of these motions, Senator Weicker states as follows:

I.

The name and address of the person to whom communications and correspondence concerning this motion should be addressed is:

Lowell P. Weicker, Jr.
United States Senator
Russell Senate Office Building
Washington, D.C. 20510

II.

Senator Weicker is a citizen of the State of Connecticut and a United States Senator representing the citizens of the State of Connecticut. Senator Weicker has a substantial interest, personally and as a United States Senator, in the subject matter of the applications. No other party can adequately represent Senator Weicker's interests.

III.

The Iroquois Gas Transmission System ("IGTS"), as proposed in the above-described dockets, presents procedural and substantive issues of significance with respect to the availability and price of natural gas and with respect to the preservation of the environment in the Northeast and in the State of Connecticut. It is essential, and in the public interest, that these issues be resolved in a public hearing, on the record, with full rights of all interested parties preserved and protected.

There are several hundred intervenors in the IGTS proceedings, including natural gas producers, pipelines, state and local government agencies, and individual citizens, all of whom will have their interests materially and substantially affected by the Commission's decisions.

Senator Weicker is of the strong opinion that a fair and impartial procedure would demand a full and complete hearing on all issues presented by the applications, so that the public interest can be established and that requirements of the Natural Gas Act and the National Environmental Policy Act will be fulfilled.

IV.

It has become necessary to file this motion due to the recent disclosure of a non-public IGTS proposal to the Commission regarding procedures to be used by the Commission for reviewing the pending IGTS certificate application. The failure of IGTS to adequately and duly apprise the other parties to these proceedings of their proposal places interests and rights in jeopardy. Commission consideration of the IGTS proposal without an opportunity for others to comment and make alternative recommendations would not be fair and equitable, would not satisfy the requirements of law and Commission regulations, nor would it be in the public interest.

V.

It has been brought to Senator Weicker's attention that Commission General Counsel Catherine Cook and IGTS counsel Frederick M. Lowther met on March 3, 1987, to discuss an IGTS proposal for Commission procedure for action on the pending IGTS application for a pipeline certificate. This is confirmed by an IGTS document, Memorandum to File From F.M. Lowther, RE: Proposed FERC/ERA Procedures For IGTS "Need" Determinations, dated March 5, 1987, ("March 5 Document"). The March 5 Document does not give any indication as to the outcome of that discussion, particularly whether or not Commission staff agreed to adopt any or all of the proposed procedures.

VI.

As the Commission is aware, the procedures used in any decision-making process can materially affect its outcome. The IGTS project is a very complex matter, raising significant questions of need, price, alternatives and environmental consequences. */ It also raises significant issues as to the relationship between FERC and the Economic Regulatory Administration, and their separate and joint responsibilities and duties under various laws and regulations. The procedures by which these complex and interrelated issues are to be addressed can be as important in determining the outcome of the process as are the facts.

It is obvious that the public interest would not be served if the Commission adopts any procedure which has the effect of denying or limiting the rights of any interested or affected party.

It is the opinion of Senator Weicker that there is the strong likelihood that the rights of the public would be seriously

---

*/ For example, the IGTS application to the U.S. Army Corps of Engineers for permits notes that the pipeline would traverse the habitat of five threatened or endangered species.

compromised if the Commission were to adopt in part or in whole the procedures apparently proposed to the Commission by IGTS at the March 3, 1987, meeting. This is even more true given the fact that the IGTS-proposed procedures vary significantly from established Commission practice, and that the other parties have neither been given an opportunity to comment on the IGTS procedural recommendations nor given a similar opportunity to make known their procedural recommendations.

The Commission should not deviate from its existing practices and procedures unless good cause is shown that such deviation is in the public interest.

VII.

It is for the foregoing reasons that Senator Weicker moves, and strongly urges the Commission to refer the issue of Commission procedure in these proceedings to an Administrative Law Judge who can, after a public and on-the-record review, make a recommendation to the Commission for its final determination. Only by taking this action can the Commission assure all parties to the IGTS proceedings a fair opportunity to make their views known to the Commission so that an appropriate and impartial procedure can be developed.

VIII.

Senator Weicker further moves that the Commission suspend these proceedings (including the development of any formal or informal understandings between FERC and any other Federal agency), pending a final determination by the Commission on the procedures to be used. As a practical matter it wouldn't make any sense for the Commission to further consider the application until such time as the Commission has determined and implemented fair and equitable procedures to be used in this case.

IX.

Wherefore, Senator Weicker requests that he be permitted to intervene in these proceedings with full rights as a party, that the Commission temporarily suspend these proceedings, and that the Commission establish fair and equitable procedures as requested herein.

Respectfully submitted,

Lowell P. Weicker, Jr. U.S.S.

Dated: June 18, 1987

CERTIFICATE OF SERVICE

Pursuant to Rule 2010 of the Commission's Rules of Practice and Procedure, I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding by depositing same in the United States mails, postage prepaid.

Dated at Washington, D.C. this 18th day of June, 1987.

Lowell P. Weicker, Jr., U.S.S.

Chris
Dodd
U.S. Senator
Connecticut

NEWS RELEASE

STATEMENT OF SENATOR CHRISTOPHER J. DODD
JULY 20, 1987

Senator Weicker, I want to commend you for bringing to Connecticut the Senate Committee on Energy and Natural Resources to conduct a hearing on the proposed Iroquois natural gas pipeline. While a hearing in my own Subcommittee on Children and Families prevents me from being in Newtown today, my thoughts are with you and the citizens of Connecticut as you consider an issue of critical importance to our state.

As you know, it has been nine months since I helped bring the Chairman of the Federal Energy Regulatory Commission (FERC) to Connecticut to hear firsthand our state's views on the Iroquois proposal. Since that time, there has been little progress toward resolving this matter. To their credit, the Connecticut utilities have opened a limited dialogue with our citizens and state officials and have expressed a willingness to consider alternative pipeline routes. At the same time, both FERC and the Iroquois consortium have refused to abandon the Optional Expedited Certification Procedure, a process which I have said repeatedly is unacceptable to the citizens of our state. We remain gridlocked in a myriad of procedural disputes and uncertainties and have not even begun to resolve the serious economic and environmental questions which surround this massive project.

Just last week, for example, FERC failed to accept it's own professional staff's recommendation to dismiss the Iroquois application under the expedited certification process. The FERC staff had concluded correctly that because the Commission has already required an Environmental Impact Statement (EIS) for the Iroquois proposal, this project can no longer be considered for expedited certification. According to the National Environmental Policy Act, the federal law which governs EIS procedures, the Commission must examine a wide range of environmentally acceptable alternatives to Iroquois, including the "no action" alternative. For this reason, the FERC staff reached the same conclusion that I did in my testimony before FERC in Torrington last October; NEPA requires a comprehensive assessment of our state's energy needs and a comparison of Iroquois with other pipeline applications, both of which the expedited procedure was designed to avoid. As I stated in my testimony last year, "the Commission cannot evaluate the relative merits of the [NEPA] 'no action' alternative without conducting evidentiary hearings on the need issue."

The FERC staff's dismissal recommendation was based on another conclusion reached months ago by many of us in Connecticut. As you know, applicants which choose the "fast-track" route must first assume all the financial risk for the pipeline's construction before FERC can justify the energy need presumption which is the heart of the expedited process. Lo and behold, the FERC staff last week determined what many of us already knew: the Iroquois project is simply too costly, and the financial relationship between the consortium's partners too complex, to really be sure that Iroquois has assumed all the risk for this pipeline project.

Last week, FERC had the opportunity to set the record straight: to dismiss the Iroquois application under the expedited procedure and establish a fair, equitable, and predictable review process for this case. Instead, trapped in a procedural maze of its own construction, the Commission refused to wake up and smell the coffee which its own staff had just placed on the table. FERC's obvious confusion over the rules and requirements of its own procedure shows the Commission itself still has more questions than answers about this ill-defined and untested certification process. Clearly, the fast-track approach cannot provide the kind of rigorous and objective analysis which the citizens of Connecticut demand for this pipeline proposal.

Senator Weicker, the people of Connecticut are not blind to the future energy needs of our state. We recognize our oil dependence - much of it from foreign countries - and the potential need to diversify our energy supplies. But we also understand the importance of due process and the need to follow well-defined rules and regulations, especially where the environment is concerned. For this reason, we cannot accept any pipeline project that is approved through a FERC process which even its regulatory authors do not understand. I call upon FERC and Iroquois to abandon the expedited certification procedure so we can move forward with the fair and equitable review necessary to answer the critical questions about this pipeline proposal.

Congress has established a body of energy and environmental laws for a reason: to achieve that delicate balance between our legitimate energy needs and our responsibility to protect the environment for future generations. Indeed, this concept of balance is embodied in the very name Congress chose for your Energy and Natural Resources Committee. In Connecticut, this sense of balance has always been a special tradition - a common axiom passed down from generation to generation. All we ask from FERC and our energy suppliers is help in preserving that balance, help in continuing the tradition of wise stewardship of our rich natural resources. We demand nothing more but can accept nothing less.

Thank you very much.

NANCY L. JOHNSON
6TH DISTRICT, CONNECTICUT

WASHINGTON OFFICE
119 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
TELEPHONE: (202) 225–4476

DISTRICT OFFICES:
1 GROVE STREET
NEW BRITAIN, CT 06053
TELEPHONE: (203) 223–8412

276 HAZARD AVENUE
ENFIELD, CT 06082
TELEPHONE: (203) 745–5722

Congreſs of the United States
House of Representatives
Washington, DC 20515

COMMITTEE ON THE BUDGET
TASK FORCE ON:
ECONOMIC, TRADE POLICY
HUMAN RESOURCES
HEALTH

COMMITTEE ON
PUBLIC WORKS AND
TRANSPORTATION
SUBCOMMITTEES:
INVESTIGATIONS AND OVERSIGHT
ECONOMIC DEVELOPMENT
WATER RESOURCES

SELECT COMMITTEE ON
CHILDREN, YOUTH, AND FAMILIES

July 20, 1987

Honorable Lowell Weicker, Jr.
225 Russell Senate Office Building
Washington, D.C. 20510

Dear Lowell:

I commend you for holding this important hearing on the need for the Iroquois Gas Transmission System (IGTS) pipeline. Since Iroquois' decision to pursue an Order 436 fast-track application does not permit a full evidentiary hearing, your initiative in convening all interested parties today is critical.

I remain deeply concerned about the pipeline proposal and have long opposed its consideration under Order 436, the fast-track review procedure, and its original proposed route. New England remains far too reliant on oil from the Middle East, but there has been no clear demonstration that our region can absorb the volume of natural gas proposed by Iroquois. In addition, the Federal Energy Regulatory Commission's recent declaration of an "open season" for northeast gas supply applications adds an entirely new dimension to this matter.

While I am pleased that the IGTS is cooperating in our effort to have the FERC hold hearings to examine the question of energy needs, the review of the pipeline's application under Order 436 continues to be inappropriate and does not reflect Congressional intent. A project of this scope merits the deliberate and broad consideration that your hearing will ensure. As you know, many 6th District residents are strongly opposed, and I share their concern about the issues of need and environmental impact. Despite constructive proposals to reroute the pipeline to minimize environmental damage, no plan should see the light of day unless these issues are fully and satisfactorily resolved.

Again, I congratulate you for calling this hearing and regret that I am unable to join you in person because of a prior commitment which is also of great interest to my constituents. On behalf of the many concerned citizens I represent, I oppose the streamlined application process and support a full review of any gas pipeline proposal.

With best wishes,

Very truly yours,

Nancy L. Johnson

Nancy L. Johnson
Member of Congress

NLJ:rl

Senator **Weicker**. We now go then to the first witness, a distinguished Congressman from the Fifth District, John Rowland, and he is accompanied by Mr. Lawrence Kumins from the Congressional Research Service.

Congressman, it is a pleasure to have you, and please proceed.

STATEMENT OF HON. JOHN G. ROWLAND, A U.S. REPRESENTATIVE FROM THE STATE OF CONNECTICUT, ACCOMPANIED BY LARRY KUMINS, SPECIALIST IN ENERGY POLICY, CONGRESSIONAL RESEARCH SERVICE

Mr. **Rowland**. Thank you very much, Senator Weicker.

Indeed, in your opening comment you made reference to the fact that sometime ago we had a hearing, a public hearing, in Torrington. It was an excellent hearing. We had a number of public officials there. We had a number of associations there. We had a large number of constituents there. Unfortunately, as you noted, the route had been changed just some two or three days previous to the hearing. So I want to thank you for taking the initiative to have this hearing and I think that the information that you will be receiving in the remainder of the day will help FERC in making their decision.

I also want to point out that over the past 16 months a number of associations and thousands of thousands of people across Connecticut have been intimately involved in this issue. It was thought at that time that the initial emotional reaction would be the only reaction to this proposal. What I have seen over the past 16 months has been much different. I think the opposition has grown. I think people become even more intensely aware of the pipeline and I feel that the persistence of all the associations and all the individuals is going to have a grave impact on the final FERC decision.

Senator Weicker, the record you will build today through this form will be of immense value because I believe that the Congress eventually will be forced to resolve some very significant issues which go to the heart of an Iroquois-type application.

Quite frankly, this whole issue is coming to a head over one simple issue: The fast-track procedure. Under that procedure, Iroquois or any other applicant can legitimately skirt around some very critical public policy issues. For instance, something as elementary and simple as whether the gas pipeline is needed becomes irrelevant. Also the issues of alternatives and competitions becomes moot.

I think that we need to look very carefully at what the bottom line is on this expedited procedure. To me the answer is quite simple in that applications under OEC do not have to stand up to the same scrutiny as do competing natural gas pipeline proposals made through the normal 7–C process.

What this amounts to is special treatment for the Iroquois-type proposal, Mr. Chairman, and I do not believe it is sound policy. What the fast track option says to the utility consortium is quite simple: "You want to build a natural gas pipeline. Apply under the fast track process and then you will have no burden of proof and you don't have to show need."

Well, in my opinion that is a ludicrous way of doing business, but unfortunately that is precisely the option that Iroquois and other pipeline applicants have been given as a result of the FERC Order 436.

Quite frankly I think we need to level out the playing field. We need to set a legislative standard that demands a single uniform process by which natural gas pipeline applications are considered by FERC.

To this end, there is pending before the House Energy and Commerce Committee, H.R. 1458, which I introduced last March. The practical effect of this legislation would deny to FERC the ability to grant fast track certification to any gas pipeline which has a length in excess of 25 miles.

Mr. Chairman, the premise I start with is that FERC, in establishing the fast track procedure, conceived it as a way of cutting through red tape for relatively small and noncontroversial pipelines, projects such as a spur or connector to an existing pipeline would be used. Nowhere, and I mean nowhere in the regulatory history of the order was it conceived that the fast track consideration would be allowed for multi-million dollar interstate pipeline projects. But because the final order does not set any upper boundary or limit to the size or the magnitude of the projects which can be considered under fast track, Iroquois and other pipeline consortiums are free to utilize what is really a very serious loophole in 436.

And quite frankly I don't blame them. Iroquois and others have every right to try and utilize the fast track procedure, and I am not going to begrudge them simply because they have creative attorneys.

Having said that, I will maintain that Congress should take action soon to greatly restrict or eliminate outright FERC's discretion to grant the fast track. I can tell you with a good bit of certainty that if Iroquois wins this case there will be an avalanche of similar fast track filings by utility consortiums all over the country. They will seek to duplicate Iroquois' success and have their particular pipeline proposals placed on the shortened review process.

Given the fact that Iroquois' application at this very moment is being weighed and discussed by the Commission members, I suggest that Congress move on this issue and move quickly, because this matter will establish a massive precedent in the field of natural gas law.

So far I have addressed the broader issue of what process should be used by FERC. At this point I would like to address solely the issue of the Iroquois application. The facts are well known. Iroquois proposes to transport natural gas from Canada to the New York-New Jersey area. Our state's utilities are a partner in this venture and they have committed to purchase 50 billion cubic feet per year of natural gas.

From day one, I have asked one simple question: Can Connecticut absorb this volume of gas? To date I have not received one shred of evidence that it could. In fact, I became so concerned at what was becoming a one-sided debate on this issue that I asked the nonpartisan, the research arm of the Library of Congress last

February, the Congressional Research Service, to address the issue of the potential gas market in Connecticut through the balance of this century. What did that report conclude?

At most, even under the most rosy of scenarios, the Connecticut market could absorb, at best, 40 percent of the gas which utility companies have committed to purchase from Iroquois. If that is correct, then the ramifications of Iroquois are enormous. In short, we will be stuck with a natural gas pipeline that is over capacity and a money loser. And if Northeast Utilities is not able to resell the unused gas to Massachusetts or New York utilities, then someone will have to pay for it—and, my friends, that means the rate payers of this State.

Now, I am well aware of the controversy which has been generated by this report and I know full well that Iroquois will come forward to you and address those issues; that, of course, is their right. At the same time, until I see otherwise, I accept the projections on Iroquois which have been made by Mr. Lawrence Kumins of CRS. He is here with us today, and I know his testimony will be of use to the Subcommittee.

One final point, Senator Weicker: Suppose Connecticut, in fact, will experience a need for significant amounts of new gas; does that mean we necessarily need Iroquois? Are there alternatives? What about Tennessee or Algonquin, the two existing gas pipelines in Connecticut? Could they increase their capacity and meet future demand increases in the State? They say that they can.

The problem is, these questions never will be answered in the event that Iroquois is given the fast track process. Along these lines, suppose Iroquois proves that we will need 50 billion cubic feet of new gas; then the question becomes, why this particular route for the pipeline? I will merely point out that Iroquois has already changed its routing configuration from that which was originally proposed to the FERC.

This entire issue has taken a great deal of time over the last 16 months from many of us. I have not even addressed the routing or environmental questions. The reason I have not is that I believe that the route should not even be an issue until we determine that there is a need, a proven need, for the Iroquois system.

Senator Weicker, that concludes my testimony. Again, I appreciate your willingness to be here, to bring the Subcommittee here. I would be happy to answer any questions. I want to commend you for your interest and continued persistence on this very important matter to the people of the State of Connecticut.

Senator WEICKER. Thank you very much, Congressman Rowland.

Let me ask, because you indicated in your statement that Mr. Kumins' report has engendered some controversy: some choosing to criticize it and others choosing to rely on it. Since we have Mr. Kumins with us, and I am very appreciative of the fact that you brought him with you to these hearings, why don't we have him respond directly to that particular matter, as to where he differs or why he feels his particular report is correct.

STATEMENT OF LAWRENCE KUMINS, SPECIALIST IN ENERGY POLICY, CONGRESSIONAL RESEARCH SERVICE

Mr. KUMINS. Well, there are a number of areas in which my report differs, and let me just touch on some of the fundamental underlying factors which makes my report different from other reports.

My report was based on the analysis of historic data over the past 10 years in Connecticut. It didn't look at any rosy projections of future demand for non-traditional gas consumption. I will touch on that in my testimony, and that is in my prepared testimony as well, updating that earlier report.

But let me tell you how gas demand has been forecast traditionally, and it has led to a lot of very, very serious pitfalls: Traditionally, interstate pipelines in lining up gas supply, have relied on customer surveys to indicate how much demand would be for gas on their system. And then they went out and bought gas from producers to meet that demand. After the Natural Gas Policy Act was passed in 1978, which opened up gas markets heretofore closed to interstate pipelines, that is gas field markets where they could buy gas from producers, they went out and surveyed their customers and their customers went and told them that, "Well, gee, we will buy lots of gas from you, as much as you can supply. Heretofore you have had inadequate supplies for us and we really wanted more. So give us as much gas as you can buy." Interstate pipelines, taking their customers at face value, went out and bought lots of gas. They bought lots of gas, as much as they could get from domestic producers and paid very high prices for it. And not only that, they contractually agreed with the producers to take as much of that gas as the producers could send their way. Lo and behold, gas prices rose and through the 80's none of these customers came through on their promises to buy gas. This left the pipeline stuck with contractual obligations to producers that we now know as the "take or pay problem." This is a multi-billion dollar problem and it has been the driving force behind these fundamental changes in the way the interstate pipeline industry has done business. It has made for big changes and caused big problems. Polling your customers and asking them, "How much gas would you like to buy," has become the most unreliable way of forecasting demand, and, indeed, when questioned on the prudencey of their pipeline purchases, the interstate pipelines have brought forward other customer surveys as evidence that they weren't imprudent. "We were just doing what our customers who we are obligated to serve told us what they wanted, and the customers didn't make good on those indications of need."

This is a very imprecise and dangerous way to forecast gas demand and I don't think it is a lesson that is appreciated fully by the four utilities that serve consumers in Connecticut.

As far as those four utilities' ability to forecast demands is concerned, my report is not the only report that is critical of them. The DPUC recently did a study on gas demand in Connecticut and looked at the four utilities' forecasts and forecasting procedures. They did find fault with them. Specifically in that draft report they ordered the utilities to improve their forecasting technology to bring more econometric techniques to bear and so on. And they really did question not only the value of the validity of present forecasts, but the historic forecasting track record of the utilities. I could read you that if you want or I could submit the language into the record.

Thirdly, only one management audit has ever been done of a gas distribution company in Connecticut, and that was just done by Professors McCormick and Padgett, and completed after the Iroquois decision was made, that is the decision to support the Iroquois project. Reading in part from the summary of that: "The variations of gas supply and prices especially portend future questions on the prudence of decisions on these matters and demand that Southern intensify its analysis of these issues and document its decisions."

I am not sure that the need for better forecasting has, at this point, resulted in better forecasts yet, and that is why I question forecasting generally in this matter, and that is why I brought forward this study, at Mr. Rowland's request, that pose an alternative set of forecasts which are updated by my testimony today.

[The prepared statement of Mr. Kumins follows:]

Testimony of Lawrence Kumins, Specialist in Energy Policy,
Congressional Research Service, Library of Congress
Before
Senate Energy Committee
Subcommittee on Energy Regulation and Conservation
Sandyhook, Connecticut
July 20, 1987

My testimony today is to summarize and update my April, 1987 Congressional Research Service(CRS) paper--Iroquois Gas Transmission System--Is There Demand In Connecticut?. That paper was prepared at the request of Rep. John Rowland and is appended. It found that gas demand in Connecticut has been stagnant since 1980 with no appreciable growth through 1985.

I did not have 1986 data at the time the paper was written, but these data, contained in the Energy Information Administration's Natural Gas Monthly of April 1987, indicate that gas demand was little changed during 1986 as well.

Comparing 1985 and 1986 data compiled by the EIA and shown in Table 1 below, total demand grew by 1 percent in 1986. This increment is composed of a 7% increase in residential sales and an offsetting decline in consumption by industrial and electric generation consumers. Commercial demand remained unchanged.

Table 1--Connecticut Natural Gas Demand, 1985 and 1986(bcf/yr)

Customer Class	1985	1986	% Change
Residential	32.8	35.1	7.0
Commercial	24.6	24.6	0.0
Industrial	18.9	18.2	-3.7
Elec. Utility	1.6	0.7	-56.3
Total	77.9	78.7	1.0

Source: Natural Gas Monthly, April, 1987

The CRS study forecast that historic markets would grow very slowly through 1995, and these latest data do not seem to change that conclusion. There is no historic basis on which to forecast demand growth for traditional gas markets in Connecticut The forecast made indicate a 1995 demand of between 75 and 91 billion cubic feet per year. The 1986 demand was 79 bcf. On the low end of the forecast, gas demand could actually decline. At the upper bound, an increase of 12 bcf is forecast by 1995. This should be viewed in the context of the matter at hand: Iroquois would obligate Connecticut utilities to take 50 bcf per year more than they now sell.

My demand forecast reflects the following factors with regard to traditional markets:

1. Residential gas markets in Connecticut are affected by the highest prices in the nation and the availability of vastly more efficient furnaces. Competition from home heating oil will remain strong. Replacement of old equipment as it wears out or becomes uneconomic to operate will likely act to reduce demand. New residential home heating customers--even if they choose gas over oil--will use less gas.

2. Commercial sales are the most likely to grow in the future, spurred by underlying growth in the states commercial economy. But with very high prices and competition from oil, there is no guarantee that commercial growth potential will be realized.

3. Industrial sales--and the small amount of gas recently used by electric power plants--are maintained only by tacit subsidy from residential and commercial consumers, who have borne increasing shares of the fixed cost of the in-state gas distribution system. The matter of how much of such subsidy can be afforded is the most important consideration in forecasting industrial demand, which has not grown at all since 1979.

Beyond traditional gas markets there are two essentially new markets that have attracted great interest among those wishing to sell more gas in Connecticut. These are the cogeneration and electric power plant markets. Their most prominent feature is that both represent controllable demand, because in both cases it is the policy of the Department of Public Utility Control (DPUC) that determines the extent to which both new markets evolve. If the DPUC adopts policies that encourage the construction of gas-fired cogeneration projects, large amounts of gas will be consumed. Or if, for example, DPUC decides that Connecticut electric powerplant mix would benefit from the addition of a combined-cycle generating plant constructed by a non-utility entity (like the Ocean States project just built in Rhode Island) then a large amount of gas can be consumed.

With regard to co-generation, the initial policy delineated by DPUC--which resulted in a surfeit of gas-fired co-generation proposals--appears to be maturing. Three projects have been approved and are moving forward, and it does seem that at this point there will be some demand from cogeneration. Given these developments, it would be prudent to include an additional 10 bcf of demand by the mid-1990's in the original forecast. This would enlarge the 1995 range to 85 to 101 bcf.

Pipeline Economic and Regulatory Issues

There are a number of factors that devolve from the complex business and regulatory environment in which the natural gas industry of the 1980's operates. Among them are the following considerations which apply to any major gas supply expansion project for Connecticut:

1. Given slow anticipated demand growth, supply expansion might best be done in small increments so that capacity is matched with demand and there is no oversupply of excess capacity sitting idle awaiting demand to grow into it.

2. FERC Order 436--despite its remand to the Commission for some important modifications--has changed the fundamental way the gas transport industry operates. For the first time, local distribution companies (LDC's) may own gas without owning a pipeline. Specifically, LDC's like the Connecticut utilities can own gas and have pipelines transport it for them on a non-discriminatory basis.

3. The court remanded Order 436, faulting its treatment of contracts between interstate pipelines and LDC's. The D.C. Circuit Court has required FERC to remedy the situation in which LDC's exit their supply arrangements with interstate pipelines and buy gas directly from gas producers. This left interstate pipelines with obligations to buy gas from producers, but negated their customers obligations to buy that gas in turn.

It is much too soon to guess how this will impact Connecticut LDC's. But one concern is that these companies could be more obligated to historic suppliers than had appeared to be the case under the original construction of Order 436. This means that a new supply increment might not be offset by reductions in takes from Tennessee and Algonquin, and this would imply that LDC's could be more obligated to gas supply than originally intended.

4. The cost of capacity expansion--and who will pay it--is an issue that has not been developed in the Iroquois debate. Connecticut gas prices are among the highest in the nation. Delivered gas prices consist of essentially two components--the interstate pipeline charges and the LDC's cost of service. The former is regulated by FERC and the latter by the DPUC. Interstate pipeline supplies during March, 1987--the most recent data--cost Connecticut utilities $3.14, compared to a national average city-gate price of $2.91. During the same month, residential gas cost $7.87, commercial service averaged $6.13 and industrial service cost $4.60. Electric utilities bought gas for $2.91 in February, 1987 (the latest data). which was below the price being paid interstate pipeline suppliers by the states LDC's.

One reason residential and commercial rates are high in Connecticut may be that those sectors are paying a disproportionate share of fixed or capital costs. Residential users paid their LDC $4.73 for gas supply under DPUC regulated tariffs, commercial users paid $2.99, industrial users paid $1.46. Electric utilities bought small amounts of gas at more or less cost, without paying any of the fixed cost of the LDC system.

(The figures used above are from the Natural Gas Monthly, based on reports made by all four Connecticut LDC's on EIA Form 857. They represent actual customer revenues received, quantities sold and purchased gas costs incurred.)

The distribution of fixed costs is a judgmental decision made in Connecticut by DPUC. There are many ways to allocate costs and it is essentially a local decision made in the state. Other states make the same general sorts of cost allocation decisions.

The major question here is: if new construction is undertaken for extra gas supply, who will pay the capital cost of that supply? Will cogenerators be willing to buy gas on a firm basis, paying a full share of the fixed cost of new supply systems? A full share of system cost cannot be allocated to industrial users because they will switch to oil fuels at lower prices. Many commercial establishments can do the same. With residual fuel oil selling at about $3.00 per million btu's and #2 heating oil at $4.35, LDC's face genuine competition from oil that can only be met by discounting their fixed cost of service. DPUC is faced with the dilemma of approving rates that allocate more fixed costs to firm customers and less to price sensitive (typically interruptible) customers. It must be emphasized that every other state commission has had to address the same problem. These difficult questions might best be dealt with in advance of project construction.

Congressional Research Service
The Library of Congress

Washington, D.C. 20540

January 6, 1987

TO : Honorable John G. Rowland
Attention: Dave Boomer

FROM : Lawrence C. Kumins
Specialist in Energy Policy
Environment and Natural Resources Policy Division

SUBJECT : Iroquois Gas Transmission System

This is in response to your letter of request sent to CRS Director Joseph E. Ross on December 8, 1986. That letter followed up a telephone conversation between myself and Mr. Boomer regarding Iroquois' natural gas demand projections. The request specifically called for a discussion of the Rudden Associates report for Iroquois--Natural Gas and Connecticut's Energy Future. That discussion follows. Since our telephone discussion went a bit beyond the report itself, I want to share some additional information that came up as I researched your initial request.

Turning to the Rudden report, there are a number of areas that come to attention as potential analytic deficiencies. These are described below in a discussion that focuses on each element of demand growth in the Rudden forecasts. These growth elements are delineated in Table 3 (p.32) of the report.

General economic growth. Rudden forecasts that in-state demand will grow 50 percent by 2000, from 83 bcf/yr to 125. This forecast is based on the historical relationship between Gross State Product(GSP) and gas demand. The only historical explanatory power GSP seems to have is that it went up at the same time gas demand increased. The correlation Rudden finds may well be spurious, sort of an historical accident.

Experience nationally has been that energy demand generally has declined relative to GNP; in other words, the ratio of energy per (real) dollar of GNP has fallen. One might expect that these historic trends would be relevant in Connecticut, especially over the long run. To count on gas demand growing simply in response to increased economic activity may be overly optimistic.

Residential Demand. Rudden's analysis continues with a discussion of the residential gas market, arguing that gas is underutilized in residential space heating. This is true, but there may be good reasons why. First of all, not all residences in Connecticut are hooked up to the gas pipeline system through local distribution utilities. The local utilities will have to invest in pipeline extensions and other new facilities. It is not clear that they can or will. And homeowners will have to want to convert to gas, something they have shown little interest in doing in your state. Right now, there is no reason for them to do so: oil is a lot cheaper. This might help explain why more residences in Connecticut than in the nation generally have gas supplied to the house but do not use it for space heating.

It is noteworthy that Rudden projects a 14 bcf increase for residential gas under these circumstances. While this may come to pass, there are a number of barriers to be overcome, including price and an underdeveloped local distribution system.

A final question: It would seem that growth in traditional markets was forecast in the exercise which correlated GSP with gas demand. Does this residential increment double-count increased gas demand?

Cogeneration is seen as an important demand increment by 2000. Approximately 38 bcf would be used in a number of proposed projects enumerated in the report. Whether or not these might actually be undertaken is speculative, and to count on their demand contribution is perhaps premature.

Cogeneration was encouraged by the Public Utility Policy Act (PURPA), which permitted cogenerators to sell power into the utility grid at a price equal to the cost of the equivalent amount of additional power that the utility could obtain elsewhere. Avoided cost—the term of art that describes this concept--has been left to State utility commissions to determine, since most of this power flows within state lines. The early experience has been that cogeneration projects were enthusiastically proposed because of very favorable economics stemming from high priced power sales. But as they came on line in states like California--where cogeneration experienced early popularity—it was soon realized that the high priced power not only cost consumers more but crowded-out less expensive power since the utilities had to accept this electricity.[1]

Additionally, the cogeneration facilities were unregulated and State public service commissions began to lose regulatory control of the power supply. So, avoided cost prices were gradually lowered to discourage otherwise uneconomic projects.

This experience could be relevant to cogeneration in Connecticut. With your State, incremental power supply would come from NEPOOL, which is on economy dispatch. This means that the lowest cost power available anywhere on the system becomes incremental supply. It is this low cost power that would be backed-out with cogeneration.

Viewed in this context, it is problematic to count on cogeneration for a substantial increment of natural gas demand.

---

[1] See Cogeneration Report, December 5, 1986. Only about 1/3 of California's planned small power projects will be completed.

Dual Fuel Electic Generation. There is no question that the future will see an increasing amount of dual fuel generating facilities. But the fuel choice will depend on relative prices of fuels, and the Rudden forecast assumes that oil will be more expensive in 2000 than the delivered price of gas. This is not currently the case, but the planning of 56 bcf of demand--equal to 2/3rds of present demand--may be as speculative as forecasting oil prices.

Combined cycle demand. Assumed here is that one 230mw project will be built. This is key, and this demand component is an all or nothing proposition. While it could become a reality, it is still speculative to count on demand from one project that may be built in the future in attempting to rationalize the construction of a major capital project.

Select use. Mixing gas with other fuels for improved performance and environmental advantages, called select use, is a likely possibility, perhaps the most dependable forecast, although it too depends on the price of delivered gas relative to oil prices.

Electric Generating Capacity. Tempering the negative effect of the above factors on future gas consumption is the fact that 3.5 gw of Connecticut's power plants are listed as oil fired in EIA's 1985 Inventory of Power Plants in the United States. This is roughly half of current capacity. Many of these plants can and do burn gas now and many could be converted to dual fuel capability relatively easily. They could indeed consume a great deal of gas, if the economics of interfuel competition were favorable. Alternatively, some of these oilfired facilities could be easy targets for other types of generation (as Rudden describes) with more favorable economics.

So the Rudden forecasts of gas demand for electric generation may be reasonable, but it will take a favorable oil-gas price comparison to make them an actuality.

Billing Mechanism. Concern has been expressed that the billing mechanism used by Iroquois would obligate consumers to pay for the gas involved. This would stem from the tariff structure which has been proposed. Rates would be set such that utility purchasers--who resell gas to consumers, passing on the cost of the gas in toto--would pay a two-part rate. There would be a demand charge to cover the cost of the pipeline facility. Utility resellers would have to pay this regardless of whether they took the gas. And there would be a commodity charge, billed separately, for the gas actually taken. The concern here is two-fold: consumers might have to pay a high demand charge even if they didn't take any gas, and gas that might be otherwise too expensive would be taken because the utility was already obligated to a high demand payment and this might be the least cost alternative. Were this to occur, domestic gas might be displaced even if it were cheaper.

CONCLUSION

A total of 11 applications are approved or pending with FERC to bring Canadian gas into the Northeast. Some are likely to be consolidated because they are competitive with each other. The attached report by Foster Associates reviews the competing projects.

There is a clear role for Canadian gas supply in the northern part of the U.S. However, whether the time or place is right with the Iroquois project, given many competing applications, and a current domestic oversupply of deliverable gas, is another matter. It is likely that this will all be taken into consideration as the regulatory process digests a large number of

Canadian gas projects and the matter of potential gas demand in New England gets more study. How the Iroquois project stands these tests--which are basically tests of the markets ability to absorb its gas--will be a matter to watch. The bottom line is that it will not likely move forward as quickly as some critics fear, because of the underlying market and economic considerations, as well as competing projects seeking a role.

87-357 ENR
Congressional Research Service
The Library of Congress

Washington, D.C. 20540

IROQUOIS GAS TRANSMISSION SYSTEM--IS THERE DEMAND IN CONNECTICUT?

Lawrence Kumins
Specialist in Energy Policy
Environment and Natural Resources Policy Division
April 21, 1987

IROQUOIS GAS TRANSMISSION SYSTEM--IS THERE DEMAND IN CONNECTICUT?

BACKGROUND

This report is an analysis of natural gas demand--and factors that are likely to affect the future course of gas demand--in Connecticut It follows earlier CRS memo that evaluated a report by R. J. Rudden Associates for Iroquois Gas Transmission System.[1] The CRS evaluation of the Rudden Report--contained in a January 6, 1987 memo prepared for and subsequently released by Representative John G. Rowland [2]--seems to have contributed to the discussion related to Iroquois certification at the Federal Energy Regulatory Commission (FERC), where the $400 million pipeline group is seeking construction approval under expedited consideration provided for in FERC Order No. 436.

Gas demand is a key issue in obtaining a certificate of convenience and necessity for this project. Connecticut distribution utilities would be committed to purchase 50 bcf (billion cubic feet) per year and one of the matters at issue is whether this gas is marketable without crowding out other gas supplies provided by existing interstate pipelines, Tennessee and Algonquin, which have traditionally supplied the State.

This analysis of the Connecticut natural gas market raises a number of questions about the proposal to construct additional gas supply capability for the State. These are particularly important because Connecticut is a small gas market that cannot be expected to absorb large increments of capacity. The upper range of the forecasts in this analysis indicates growth in the order of 2 or 3 bcf/year can be expected in the current energy market environment. No growth at all is also a real possibility.

---

[1] Natural Gas and Connecticut's Energy Future.

[2] Iroquois Gas Transmission System.

Conversion of one steam electric plant to use gas, construction of a combined cycle generating station, or a major shift to gas-fired cogeneration could absorb the whole increment of supply offered by the proposed Iroquois pipeline facility. There are, however, no firm plans for using gas as a primary fuel in any generating facility, and the State DPUC has put a hold on gas-fired cogeneration.

Connecticut represents a small gas market (neighboring New York and Massachusetts use 3.5 and 8 times as much gas respectively), suggesting new gas supply projects could be planned regionally. Obligating Connecticut utilities to absorb a large increment in supply could be risky, since the largest markets are in adjacent States. Careful regional planning seems to be implied in this option.

Additional competition is often cited as a benefit stemming from the Iroquois project. Competition is always a desirable situation, but there are two questions that must be raised in the Connecticut situation:

(1) How much more competition is required to achieve measurable benefits in a small, stagnant market?

(2) What gains are to be realized when delivered ("city gate") gas prices have reached perhaps the lowest level of the decade?

The most likely beneficiaries of competition stemming from additional sources of gas supply may well be near-by States.

Other questions about Iroquois flow from the regulatory environment and changing nature of the way interstate pipelines do business. For example, FERC Order 436 provides for consumers purchasing their own gas and contracting with an interstate pipeline to transport that gas at non-discriminatory rates. This gives LDC's and large consumers the opportunity to own their own gas, without owning a pipeline. As Order 436--which is a relatively recent and far-reaching change in the regulatory environment--plays out, it may provide the benefits of a project like Iroquois without major new pipeline construction. How and to what extent Order 436 serves Connecticut will bear on a decision to endorse new construction.

Expedited construction of a facility like Iroquois could crowd out other projects that might be more beneficial in the natural gas markets of the 1990's. Energy market trends may become more clear in the new pricing regime and regulatory changes--and attendant changes in the way existing interstate pipelines will do business in the future--could impact on the Iroquois decision.

INTRODUCTION

In contrast to the Rudden report--which attempted to scope the potential gas market in Connecticut generally--this study projects future gas demand in the State based on past demand, from 1975 to 1985. These data are shown in Table 1. A major event taking place during this period was enactment of the Natural Gas Policy Act of 1978. In the wake of NGPA's passage, gas prices rose, supplies increased and demand fell. More gas became available to interstate markets, including Connecticut. Prior years had been characterized by supply shortages, and this makes data prior to 1975 unreliable for forecasting. This disequilibrium situation has been replaced by an

CRS-4

Table 1

NATURAL GAS DEMAND, CONNECTICUT (BCF)
1975-1985

YEAR	RESID.	CHANGE	COMMER.	CHANGE	INDUS.	CHANGE
75	30.5		15.5		15.0	
76	32.9	7.29%	16.6	6.63%	16.5	9.09%
77	31.7	-3.79%	16.9	1.78%	15.5	-6.45%
78	32.3	1.86%	16.8	-.60%	16.6	6.63%
79	31.8	-1.57%	17.8	5.62%	19.2	13.54%
80	32.7	2.75%	20.0	11.00%	20.8	7.69%
81	34.1	4.11%	23.0	13.04%	21.0	.95%
82	33.6	-1.49%	25.0	8.00%	20.5	-2.44%
83	31.6	-6.33%	24.1	-3.73%	20.2	-1.49%
84	33.7	6.23%	25.3	4.74%	21.3	5.16%
85	33.8	.30%	25.2	-.40%	19.5	-9.23%
90-Low	31.9		25.2		19.5	
90-High	36.3		28.8		19.5	
95-Low	30.3		25.2		19.5	
95-High	38.8		32.9		19.5	

Source: AGA, Gas Facts, various issues and CRS estimates.

oversupply of deliverable gas, as well as other factors which have distorted markets.

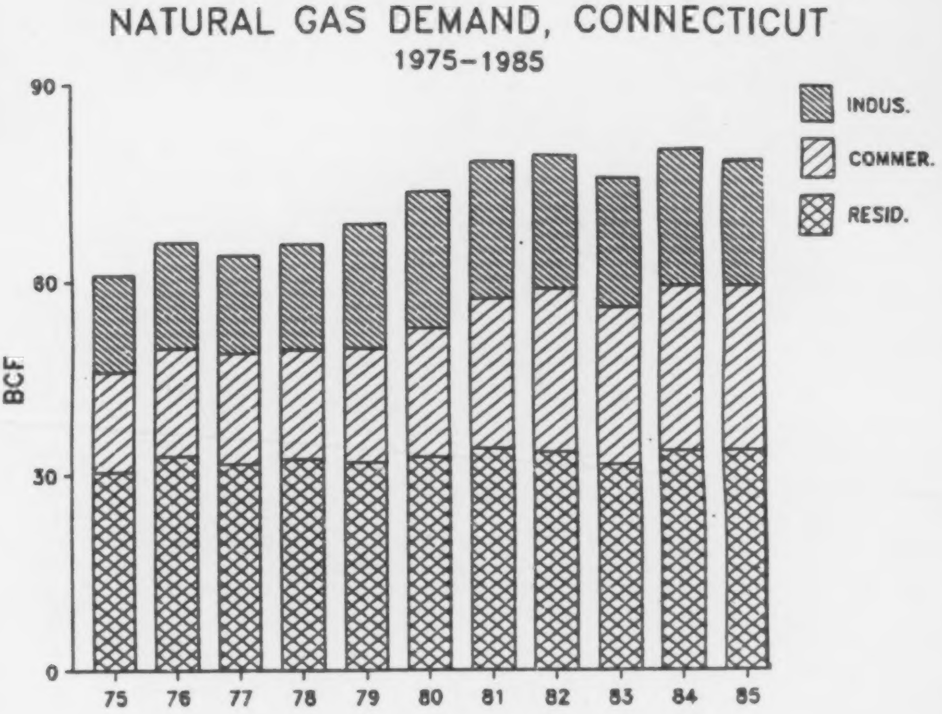
While historic data from the 1975-85 time frame are a useful indicator of what the future holds, other considerations must be factored in. In particular, underlying market trends during the first half of this time frame--1975-80--were clouded by unfolding events in energy markets generally, their interaction with NGPA and the opening up of the interstate market. Thus, the more recent half of our analytic base period might be more heavily relied on as containing relevant information for forecasting.

One major caveat must be noted at this point. Forecasts made in this paper are based on current perceptions of the oil market and how prices are likely to be determined in the future. The basic premise is that crude oil prices are stable in the $18.00 per barrel area, and are likely to rise only slowly during the next 10 years. Thus the predictions made in this paper are based on the delivered price of gas not falling significantly (in relation to oil) or the price of competing oil fuels not rising markedly (relative to burner-tip gas prices). While the center of gravity of current forecasts seems to fall in this general range, predicting oil prices is demonstrably a very risky endeavor.

Forecasting Natural Gas Demand in Connecticut

Figure 1 shows gas demand and its components during the most recent 10 years of available data. The time profile shown here seems to depict significant growth. This report analyzes this apparent growth and its components,and makes a determination of what underlying growth trends might prevail for the remainder of the century.

Figure 1.



Source: AGA, Gas Facts, various issues.

Gas demand in the residential, commercial, and industrial sectors of the Connecticut economy is examined. The role of gas in electric generation is examined separately. Each of these sectors is examined from an historical view and then forecasts are made. Finally, these forecasts are aggregated and a forecast range is developed.

Residential Gas Demand

Figure 2 shows the historical and projected growth in residential gas demand in Connecticut. During the past 10 years of available data residential demand increased about 10 percent, but during the past 5 years it increased little. Table 1 shows the rate of increase here to be only about 0.5 percent annually.

Residential gas demand in Connecticut has some unique features that distinguish it from that in other States. Of all Connecticut residences with gas service to the unit, only 64.5 percent[3] use gas for house heating. This saturation rate is below the national average of 88.8 percent[4]. While any number of explanations are brought forward, the most important consideration is that Connecticut residential gas prices are (or at least they were in 1985) the highest in the continental US--$8.89 per millon btu's[5]. This is 50 percent above the national average and the equivalent of $1.23 per gallon for home heating oil. It is likely that most residential customers who want to use gas are doing so right now, and a major switch to gas is unlikely unless the prices gas distribution utilities charge householders falls markedly or the price of oil rises dramatically. Based on the most recent prices for home

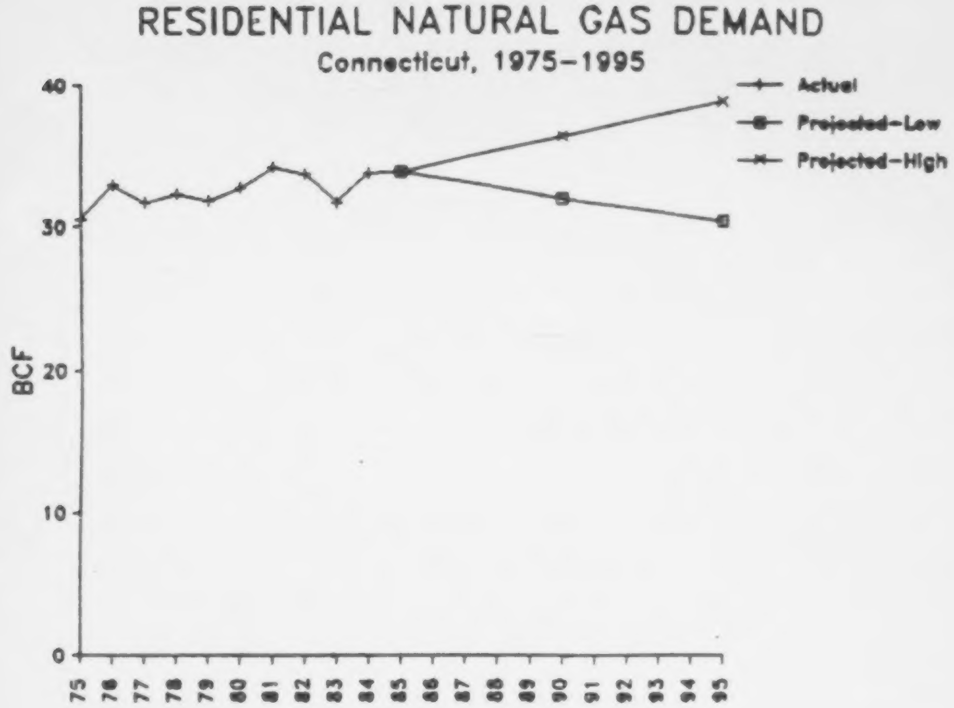
---

[3] American Gas Association, Gas Facts, 1985. Table 8-5.

[4] Ibid.

[5] Ibid, Table 9-6.

Figure 2



Source: AGA, Gas Facts, various issues and CRS estimates.

heating oil in Connecticut--68 cents per gallon in September, 1986[6]--heating oil prices would have to double for homeowners to consider conversion on a fuel price basis alone.

Barring a change in relative fuel prices, what will happen to gas residential demand? It will likely go down, because as old furnaces wear out and are replaced with new facilities, the new furnaces are vastly more efficient than old. Based on 1982 appliance survey data for New England[7] a new furnace will consume 78 million btu's per year, in contrast to 106 for an old one. These data suggest that new furnace will consume only 73 percent as much gas as the one it replaced. This forecasting approach is likely conservative, since gas furnace technology has improved greatly since 1982. Furnace efficiency alone is not sufficient to attract oil customers to gas, since oil furnaces are comparably efficient.

The conventional rule of thumb is that gas furnaces last an average of 20 years, so the implied replacement rate is 5 percent annually. An estimated 80 percent (or 26.9 of 33.8 trillion btu's) of residential demand results from the home heating load, so residential space heating demand may be expected to decline by 1.4 percent annually because of improved replacement equipment. This amounts to about 1 trillion btu's, and represents a drop in total residential demand of about 3 percent annually.

Is there a growth side to the residential gas market? The answer really depends on how relative fuel prices are perceived. If the relative price difference between oil and gas is perceived as being persistent, it is hard to see how consumers could choose to switch to gas or to choose gas over other fuels in a new residence. How consumers will evaluate the higher cost of gas, possible uncertainty about the price differential and the amenities inherent in gas as a fuel are factors that are harder to ascertain. Looking at the optimistic side of the residential demand outlook, gas hook-ups increased from 371,000 in 1980 to 394,000 in 1985, an increase of 6 percent.

---

[6] DOE, Monthly Energy Review, September 1986, p.100.

[7] Gas Facts, 1985. Table 10-9.

Househeating customers rose from 216,300 in 1980 to 254,100 in 1985, an average rate exceeding 3.5 percent/year. Most of this impressive growth took place during the 1980-84 period when the oil-gas price differential was large and favored gas--gas heating customers actually declined between 1984 and 1985 (from 256,400 to 254,100) when the pricing relationship inverted.

This growth rate, however, has not translated into proportional overall demand growth. Average annual demand growth was less than 0.6 percent annually during the 1980-5 period. The fact that the number of househeating customers grew rapidly between 1980 and 1985 and gas consumption barely changed supports the view that increased househeating penetration will be offset by greater efficiency.

In making a forecast based on these historic data, a number of conflicting factors must be considered. On one hand, gas faces a very large--but possibly transient--price disadvantage. On the other hand, recent history has shown growth in the number of residential heating customers, and a potential for greater future growth based on the large number of non-heating residences hooked-up to the gas distribution system. Based on these considerations, the study forecasts a range of future demand, high and low. The underlying assumptions are:

(1) For the lower bound of likely demand, there will be no new residential conversions to gas heating because gas is too expensive. This means there will be no growth from new customers but, as old gas furnaces fail, they are replaced with new, high efficiency units. In other words, gas

homeheating customers are assumed not to switch to other fuels as it becomes time for furnace replacement--they install a modern gas furnace.

The bottom line for a forecast based on this logic is that residential gas demand will decline. Falling residential demand is a likelihood in any event, as long as residential gas prices remain at 1985 levels, and oil prices stay low. Table 1 shows the low side forecast, based on a decline in homeheating consumption of 1.4 percentage points per year, a loss of 2 trillion btu's (or about 2 bcf) of load annually.

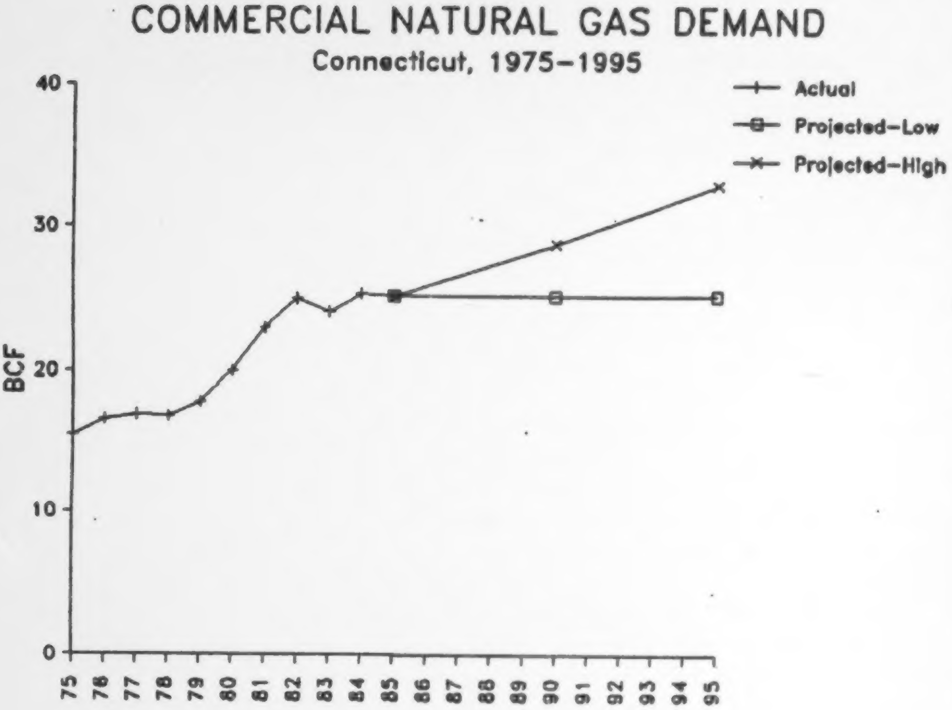
(2) The upper demand range assumes that new gas heating customers will grow at the 3.5 percent annual rate (consistent with historical experience) and old furnace replacement will continue as described above, with 5 percent of the current inventory of furnaces being replaced annually with new, high efficiency equipment.

The net result of these two processes, which are ongoing simultaneously and working in opposite directions, is that overall heating demand (26.9 bcf in 1985, and perhaps the same in 1986) would grow at 2 percent annually. This means net growth of about 0.5 bcf annually. Figure 2 shows how this plays out over time.

Commercial Demand

Table 1 shows that commercial demand grew nearly 5 percent annually during the 1975-85 period, and this growth is illustrated clearly in Figure 3 But a close look at the time-path of commercial demand during the latter years of the period indicates that demand was similar in 1985 to what it was in 1982, about 25 bcf/yr. While significant growth potential in the commercial sector has been claimed, it has not been visible during the past several years. This, coupled with the knowledge that oil is cheaper, makes it

Figure 3



Source: AGA Gas Facts, various issues, and CRS estimates.

difficult to forecast any growth in this market. On the other hand, Connecticut's basic commercial economy is quite strong and the potential for growing demand is hard to discount.

Perhaps the real question is how can commercial demand grow when the gas/oil price relationship is so out of balance? This is a particularly important question since gas was relatively cheap during the years when the most growth took place--1979,80 and 81.

These differing perspectives form the basis of a high and low range of commercial demand. The low estimate is that commercial demand will not grow at all. It has stagnated since 1982, and still suffers a competitive disadvantage relative to oil. Zero growth should not be seen as an overly conservative assumption--it is entirely possible that commercial demand might go down given the high relative and absolute price of gas.

The upper bound forecast is based on the concept developed by Rudden[8] that gas demand will track real economic growth in the state. Rudden forecast 2.7 percent annual economic growth, and proportional gas demand growth seems reasonable for the commercial sector on the theory that economic and commercial activity are directly related.

Viewed in light of commercial demand growth during the past 10 years--about 5 percent annually-- this forecast could seem low. However, demand appears to have peaked in recent years.

Industrial Demand

Table 1 shows a pattern of essentially stagnant and possibly declining industrial demand. There has been virtually no growth since 1980, a pattern consistent with industrial demand in the rest of the country. This decline has two components: price induced conservation (and more recently fuel switching) and the general decline of heavy manufacturing.

---

[8] See p.22-3.

There is little historic reason to expect industrial gas demand in Connecticut to grow. And the fundamentals--the nature of industrial fuel demand and price relationships with competitive fuels--suggest little growth or falling demand. This has certainly been the experience nationally, and total U.S. industrial gas demand is much less than it was 10 years ago.

Barring an increase in heavy manufacturing activity in Connecticut, a sharp increase in oil prices, or a major shift in gas prices, industrial demand is forecast to remain flat. This is reflected in Figure 4 where 20 bcf/yr of demand is shown during the forecast period.

Electric Demand

An optimistic future has been portrayed for potential gas demand to generate electricity in New England. Many new, large Canadian gas import projects forecast significant growth in demand from electric generation. This demand would come from two sources:

* Use in existing powerplants as a substitute for oil or possibly coal;

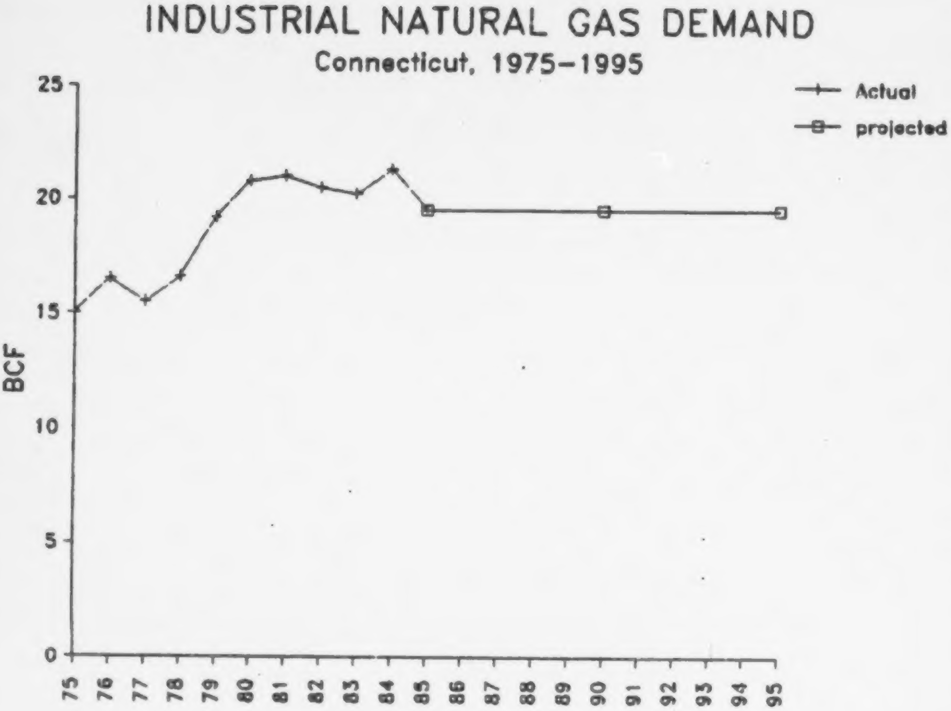
* New generating facilities, essentially cogeneration or combined cycle plants.

Assessing the demand for electricity in New England is difficult; determining the role gas might play in this uncertain overall picture imposes another layer of uncertainty. A great deal of the uncertainty associated stems from the fact that New England electrics burn very little gas. In 1985, the region's electric utilities used 37 bcf[9]; in 1986 the figure was only 7.5 bcf. This amounts to 6.5 percent and 1.7 percent respectively of total

---

[9] Electric Power Monthly, October 1986. Energy Information Administration.

Figure 4



Source: AGA, Gas Facts, various issues, and CRS estimates.

primary fuel. In Connecticut, gas consumed in the utility sector was virtually too small to measure, amounting to less than 1 percent of total State demand.

With this historical background, it might be expected that there will be little demand for gas to generate power in the future. The current oil-gas price relationship helps explain why gas has not been a popular conversion fuel in powerplants currently burning oil.

However, cogeneration and combined cycle plants represent a new application and a new technology, which could add to gas demand in the electric power sector. The cogeneration potential is being developed as a result of the Public Utilities Regulatory Policy Act of 1978. PURPA requires electric utilities to purchase power from projects declared to be Qualifying Facilities (QF's) by FERC, at a rate that ultimately is determined by the State regulatory agencies. The playing out of PURPA has led to an extremely complicated and changing market for cogeneration facilities, leading to a surfeit of QF's in some States where rates were initially set too high. The experience in these States was that high-priced power started to come into the electric supply grid, raising consumers' rates. Additionally, public service commissions became concerned with the prospect of losing control over a significant portion of the power supply, generated by unregulated QF's.

There are several lessons that may be applicable to Connecticut. Potential cogenerators--less than a handful of QFs have been built to date--will have to take a serious look at economics, as will the State regulatory agency. Some determination of what avoided cost (the price paid the cogenerator by the utility, as set by the utility commission) really means in Connecticut must be determined in the context of a larger number of units supplying more power. It may well be the price of future hydropower from Quebec, whose price itself is yet to be determined.

The Department of Public Utility Control took note of the experiences of other States, and has dealt with a rash of applications for QF's by establishing a ranking process for approving applications. "Generally, the DPUC will prefer projects that use renewable fuels or municipal solid waste, produce a high proportion of thermal energy, do not sell large amounts of power to a utility..."[10] Concern exists at the DPUC that "...too many large fossil fuel-fired cogeneration projects...will unnecessarily raise the price of electricity while taking the place of other supply options that may be less costly and more consistant with state and federal energy policies."[11] It seems clear that pricing for QF projects in Connecticut has not stabilized, and that the DPUC has adopted a go-slow policy until the impact of such facilities on overall power supply economics is clarified. It seems unlikely that the DPUC will permit construction of all proposed gas-fired QF's. Substantial gas demand from such projects should not be projected until the regulatory environment stabilizes, giving gas-fired QF's a green light.

Combined cycle is another matter. This highly efficient combination of steam and gas turbine technology has caused quite a bit of excitement because facilities can be built quickly and at low capital cost. They can use expensive fuels cost-effectively, since their thermal efficiency can be twice that of a traditional fossil fuel plant.

Electric utility load is growing in New England--and while capacity is likely adequate until the early 1990's--at some point the New England Electric Pool (NEPOOL) will have to address the matter of how to meet future capacity needs. Gas-fired combined cycle plants may play an important role here, although they could be crowded out by Canadian hydropower or even nuclear or coal fired capacity.

---

[10] Cogeneration Report, July 18, 1986, p. 1.

[11] Op cit., p. 2.

Major additions to generating capacity are likely to be planned well ahead of time. Right now there is no showing of interest in adding any significant capacity. The one exception here is the Ocean States combined cycle facility in Rhode Island. While construction of this plant may hearten sponsors of Iroquois and similar pipeline capacity addition projects, to justify construction based on anticipated combined cycle demand requires consideration that these projects involve a great deal of forward planning. In the case of Ocean States, this meant coordination with a pipeline supplier to ensure gas supply for the life of the facility, a fairly typical feature of electric supply planning.

Since electric generating projects involve significant forward planning, lining up fuel supply is part of this process. Should there be significant demand for gas to generate power in Connecticut it will come in increments of significant size. A concrete showing of interest to a potential supplier would be likely. For electric power generation, new gas supply will not create demand. Because pipelines can be built or expanded faster than generating capacity, gas supply is more likely to follow electric demand.

Iroquois and Some Relevant Policy Considerations

Beyond limitations on demand in traditional gas markets within Connecticut, there is the matter of having an additional pipeline supplier to serve the region. Still further, an additional supplier backed by large supplies of deliverable gas from a new source seems to make an attractive proposition even more so. Iroquois proponents cite the additional competition from a third supplier as a factor that will reduce the cost of gas supply in the

State and generally contribute toward making the local gas market more competitive. The implied promise of greater supply at lower price and access to another transport system is appealing.

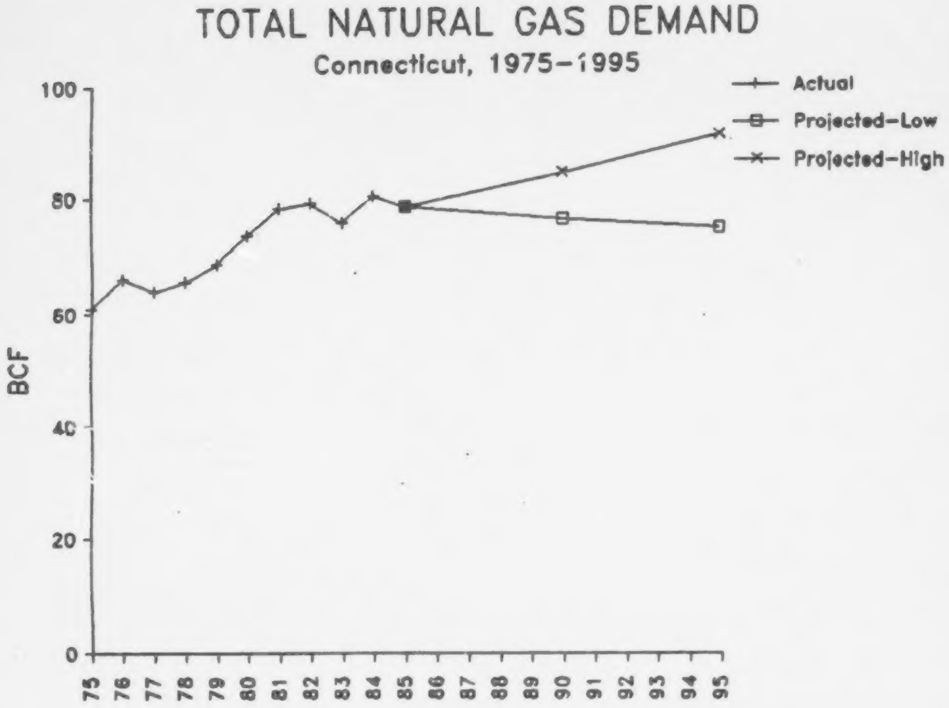
A number of other factors can prudently be looked at that in order to put future expectations into realistic perspective. The key concern is how much Canadian suppliers will offer discounts to crowd out other gas in Connecticut. The gas in question comes from Alberta via the trans-Canada pipeline and this is a long haul. Both Transcanada and Alberta producers expect to receive some form of profit on this transaction, and the inherent transport costs are high given the distance involved. Then there is the matter of Iroquois own tariffs, which, coupled with the border price, comprise the city gate price, where local distribution companies (LDC's) acquire the gas. LDC tariffs in Connecticut are among the highest in the Nation, and they have risen during the past year. It is uncertain where the discount will come from. The expectation is that Canadian gas will be cheaper, but for this to be realized a deliberate policy of either discounting transport from Alberta, or a willingness by Alberta producers to discount their gas for the Northeast U.S. market must occur. Or perhaps Iroquois may offer its own discount tariffs, because it is itself under competitive pressure from both other interstate pipelines and U.S. producers offering direct sales of gas under Order 436 transport programs implemented by the interstate pipelines.

Although LDC's in the past have found fault with existing pipelines in Connecticut, competitive forces have driven gas prices down. In addition, the promise of more competition under Order 436 as more pipelines offer non-discriminatory transport programs offers a further alternative to the Iroquois project. And if under Order 436, LDC's can own gas supply themselves and have carriage provided by existing systems, why would an LDC want to own a (new) pipeline? One of the variables that must be evaluated as an Iroquois alternative is how the transport market--which is just beginning to develop under Order 436--will serve LDC's wishing to acquire gas from producers for their own account. This might be a better deal for Connecticut gas utilities as well as consumers.

Then there is the matter of which facilities are built by whom to enhance or supplement regional gas supply. First of all, most enhanced supply proposals would affect more than one State. It is thus important to consider each proposal in the context of regional supply considerations. This is particularly important for any project offering enhanced gas supply to Connecticut. Because instate demand is so small, any large supply increase will be hard to absorb quickly. More than likely, Massachusetts--with 63 percent of New England's current gas demand--or New York--which uses 8 times as much gas as Connecticut--are more important factors to be considered in any regional supply expansion program.

The Connecticut market is so small that it cannot be reliably counted on to absorb large increments of gas supply quickly, since growth--which might not occur at all--appears limited to a maximum of 2 or 3 bcf/yr, as shown in Figure 5. Thus expansion might best be accomplished as part of a broader more geographically diverse projects, where regional planning and consideration of the many pending options are carefully weighed. Planning in a broader context also insures against market risk in an environment of changing relative oil-gas prices and with regard to an in-state market that is so small that growth cannot be reliably forecast. Supply enhancement programs undertaken on a diverse and broad basis would avoid the risk of

Figure 5



Source: AGA, Gas Facts, various issues, and CRS estimates.

having large amounts of unused gas pipeline capacity costing ratepayers money while waiting for demand to materialize.

With the probability of small growth increments in Connecticut's demand in mind, the Iroquois project should also be evaluated in the context of other Canadian gas supply proposals for the Northeast. These offer an opportunity to expand capability in increments that may be better matched to growth patterns, or at least those forecast for the State particularly.

A Note on Oil and Natural Gas Prices and Demand

Among the most important considerations affecting the outlook for natural gas demand in Connecticut is the burner-tip price of gas and the price of competing oil fuels, especially in industrial and steam-electric generation markets.

Burner-tip gas prices are the sum of essentially three elements:

(1) The price paid gas producers for the commodity at the wellhead. Prices paid to producers are passed directly along to ultimate consumers.

(2) Transport rates charged by long-haul pipelines, which bring gas to Connecticut and deliver it to local distribution utilities (LDC's) at the "city gate". These rates are set by FERC.

(3) The LDC's own rates, which are set by the Connecticut Department of Public Utility Control (DPUC). These rates include pass-through of the wellhead price of the gas, the interstate pipelines tariff, and the LDC's own cost of service, as determined by the DPUC.

The DPUC determines the way costs are allocated among the classes of service, and setting residential, commercial and industrial tariffs. Recent rates have reflected falling purchased gas prices, and falling city gate prices paid interstate pipeline suppliers by LDC's.

Most recently, Connecticut LDC's have been paying a State-wide average price for gas purchased from suppliers of just over $3.00/mcf. LDC tariffs added to this result in burner-tip prices. In the case of residential service, these rates are the highest in the continental US.

High residential tariffs are both the cause of a future problem and the symptom of an existing one. Faced with sharp competition from falling oil prices, LDC's have lowered industrial rates substantially in order to avoid losing these customers completely. To make up the lost revenue, residential and commercial rates have remained virtually the same, despite declining city gate prices. This in turn presents an inhibition to adding residential heating customers, often cited by utilities as a growth opportunity.

Prices charged LDC's by interstate pipeline suppliers have declined from $4.56/mcf in January, 1985 to $3.13/mcf in November, 1986[12]. While interstate pipelines transaction prices were falling, not all LDC customers in Connecticut were realizing the full $1.43 drop in wholesale prices. Residential prices declined by only $0.27[13] and commercial prices fell by $1.33[14].

In contrast, prices charged industrial consumers by LDC's fell by $2.60[15]. Obviously, LDC's discounted gas to industrial consumers heavily, lowering prices far more than their gas cost dropped. They appear to have cross-subsidized this discount by not lowering residential prices by the full decrement in supply cost. Since LDC's rates are set by the State utility regulatory body, the LDC's must have had approval to do this. But the policy consideration is that if industrial consumption (and this includes LDC sales to electric power plants) requires a heavy cross-subsidy in order to meet competition from oil fuels, how much more subsidy can residential and commercial consumers afford to pay?

---

[12] Natural Gas Monthly, December, 1986. Energy Information Agency, Table 27.

[13] Ibid., Table 29.

[14] Ibid., Table 30.

[15] Ibid., Table 31.

Within the framework of current energy markets, LDC's are pricing gas to industrial users at $3.97/mcf, down from $6.57 in January 1985[16]. This is in large part an effort to meet competition from oil fuels. Had the LDC's merely passed on the reduction in purchased gas costs, they would have been pricing industrial gas at $5.14/mcf[17]. But this would have made it difficult to meet oil competition and the LDC would have run the risk of losing both market and revenue, since even discounted industrial gas sales generated revenue of about $0.84/mcf [18]. But total revenue requirement, if January, 1985 rate structure is a guide, is $2.01/mcf.[19] An industrial rate discount of $1.17/mcf is implied, and this has been recouped by not passing on purchased gas savings to residential and commercial users who cannot use a fuel other than gas.

This puts supply enhancement projects to a kind of market test. Under present market conditions, they must deliver gas to the city gate at about $2.00 or less. If the price exceeds this level, LDC's will not be able to charge their full cost of service to the oil-competitive industrial/utiltiy market, because this would raise prices above the $4.00 range. Were prices to exceed this level, the LDC would not be able to recoup the cost of service associated with the sale of the supply increment. Historical experience indicates that an industrial market subsidy would result, at the expense of the residential and commercial markets.

---

[16] Natural Gas Monthly, op cit., Table 31.

[17] Calculation--$6.57 minus $1.43.

[18] Cash flow is represented by the price the LDC receives from industrial sales, $3.97 less the cost of purchased gas, $3.13.

[19] The calculation here is 1/85 industrial price less city gate price paid--$6.57 minus $4.56.

The characterization made above is clearly based on current energy market conditions and current expectations of future energy market conditions. Oil prices are expected to remain at current levels for the near-term, and then rise at relatively low rates through the mid-1990's. Changes in the fundamental nature of energy prices generally would affect the conclusions of this paper in a major way. Additionally, changes in natural gas field markets would have a similar impact on our analysis. A firming of gas prices, for example, would likely result in gas being more difficult to sell in competition with oil, especially gas delivered over a great distance where transport cost becomes an important component of delivered price.

Senator WEICKER. Thank you very much, Mr. Kumins.

Congressman Rowland, do you have anything further to comment on relative to this?

Mr. ROWLAND. I think that two points need to be brought out: Number one, there has been some contention that the increase in gas demand in Connecticut is something like seven percent, according to the public reports that I have read. There has also been some criticism that Mr. Kumins did not use the correct information. The fact of the matter is that when the report was done, the 1986 information was not available. But even after, adding in the 1986 information, the pertinent information looking back at the history of the gas demand in Connecticut, it shows the demand is still only one percent.

I think the other significant factor is this: The national average of gas owners—in other words, households in Connecticut or households throughout the country that have gas in their residence that use the gas, is approximately 80 percent. So there are 20 percent, on the average, of people that have gas in their homes that do not use it. In Connecticut there is approximately only 64 percent of the people that actually have gas in their homes, yet do not use it. The reason that occurs is that the price of gas in Connecticut is either the highest or one of the highest in the entire country and there has been no statistical information or history that has proven that if all the prices go up, gas prices will still stay down or still stay at the same level. So I think a lot of the information that has been brought forward has not been substantiated and what Mr. Kumins has done is try to use historical data. He has tried to use information available without tainting that information.

I believe, and I would like to hear the response to this later on, the seven percent growth made reference to is purely residential growth because the commercial growth, if Larry can correct me, stayed about the same, but the industrial amount declined enormously. As a matter of fact, it declined enough to offset the seven percent residential growth. So in the final analysis, if you use apples and apples, what we come up with is a one percent growth in the gas demand for the previous year or two.

Senator WEICKER. Now, one of the things that disturbs me at this juncture is that I think all of us feel that nuclear power, as such, has just about leveled off. You are not going to build more nuclear power plants. Indeed, a good portion of our mix already comes from energy generated by nuclear. And then I pick up my newspaper and I see oil starting to go like that. Now, this state has gotten away with being able to maintain somewhat of a cap on its energy costs by virtue of our nuclear capacity. Any sort of an appreciable rise in oil, believe me, is going to impact very harshly on the State of Connecticut. So why can't the question be asked—and I am sure it will be not only asked, but people will speak to it—that as an additional protection for the people of the State of Connecticut, we should have this availability of additional natural gas?

Mr. ROWLAND. That is a very legitimate question and one that you and I must ask ourselves, as well as opponents and proponents of the Iroquois pipeline. I think the follow-up questions that come forward are very simple. Will the people use that gas if we bring forward more capability, more capacity? And I think that is the major issue that must be responded to. Is it fair to assume that if the price of oil goes up the price of gas will not go up? Is it fair to assume that people will use gas if they have it in their system, versus oil? Is it fair to assume that we cannot use Tennessee or Algonquin's gas that we presently have? Is it fair to assume that when you spend some $350 million on a new pipeline, that that cost is going to be absorbed and it is not going to make the total cost of the gas in the future totally out of hand, considering the fact that we are working with a base that is higher than any other gas in the country.

So I think those follow-up questions must also respond to a question of national policy and state policy, and you and I as leaders in the policy making decisions must be concerned about what is best for the state as a whole, you know, the long term. And having addressed those long-term considerations, I still believe that there is no need for the gas and that there is no reason, historically or otherwise, that people will use more gas than they presently are.

Larry would you like to say more?

Mr. KUMINS. Well, I think my testimony addresses that issue pretty broadly.

Senator WEICKER. I might add, your testimony will be included in full in the record, and indeed, the Congressman's testimony and yours, and the testimony of everyone else here today, will be submitted to FERC for inclusion in their official record on the Iroquois pipeline. So this is all going to be apart of their record also.

I thank you both for your testimony and response to the questions. Is there anything further that you want to cover?

Mr. ROWLAND. Senator Weicker, I would just like to take a moment just to thank the various associations, the HVA and I know that in Newtown, Shelton, Oxford and Monroe, there have been a number of associations that have also been organized and very involved. I know we have received well over a thousand letters and phone calls and petitions. There have been state legislators involved, mayors for selectmen, members of the congressional delegation; most importantly, people out there that have a very legitimate concern, not only about the need, but about the environmental impact and the quality of life through the regions that will be affected. And I just want to take a moment to thank them for their persistence and their interest in the matter. Most of it has been volunteer time, volunteer money, and I think FERC will also agree that we have presented a good united effort. I think we have provided a bipartisan, professional attitude towards this pipeline and I think, regardless of what happens in the future, everyone will be for the betterment of having had this discussion and having had this interaction with the federal government and all the people involved.

Again, I want to thank you for being here today and bringing the Subcommittee before us. I appreciate it very much.

Senator WEICKER. Thank you very much.

While we are changing the panels, I gather there are those here that would like to be heard that are not on the official witness list. It is the intention of the Chair to recognize those persons and give them an opportunity of a few minutes length each to express themselves. I want everybody who came here that didn't get the opportunity to be a part of the formal proceedings, I want them to know that they will be a part of these proceedings.

Our next witnesses are the Attorney General of the State of Connecticut, Joseph Lieberman, and the Acting Undersecretary for Comprehensive Planning, Office of Policy and Management of the State of Connecticut, Mr. Horace Brown.

Mr. Lieberman and Mr. Brown.

I would appreciate it if you, as did Mr. Kumins and Congressman Rowland, keep their prepared remarks to a minimum. Their statements, everybody's statement in its entirety will be placed in the record, in order that there might be a back and forth as between the Chair and the witnesses.

Joe, good to have you here.

Mr. Brown, good to have you here.

Why don't you lead off?

Mr. **Lieberman**. Thank you, Senator. Thank you for being here and thank you also for giving us, on behalf of the State of Connecticut, the opportunity to speak with you.

On my left is Assistant Attorney General Will Gunling who has done the lion's share of work on the legal side for the State in this matter. And on my right, as you indicated, is Horace Brown. I would like to yield, if I may, to Mr. Brown, to give some background about the State's involvement, and then I will come back for the legal issues and actions.

STATEMENT OF HORACE H. BROWN, ACTING UNDERSECRETARY FOR COMPREHENSIVE PLANNING, OFFICE OF POLICY AND MANAGEMENT, STATE OF CONNECTICUT

Mr. **Brown**. Senator Weicker, my name is Horace H. Brown, Acting Undersecretary for Comprehensive Planning in the State of Connecticut's Office of Policy and Management. I would like to comment briefly on actions of the State of Connecticut regarding the proposed Iroquois gas pipeline.

Last year, Governor O'Neill asked Attorney General Lieberman to file for intervenor status before the Federal Energy Regulatory Commission, or FERC, on behalf of the State and its Department of Environmental Protection, Department of Public Utility Control, and the Office of Policy and Management. The Office of Consumer Counsel also filed. Intervenor status was obtained and the matter has been vigorously pursued ever since. The Governor also asked Secretary Milano of the Office of Policy and Management to work with the Attorney General and to coordinate activity of all appropriate state agencies.

I was given responsibility to pursue this matter by Secretary Milano, and have worked very closely with the Attorney General's Office for many months, as well as with various state agencies. Governor O'Neill also named a Citizens Monitoring Group, chaired by former governor and senator Abraham A. Ribicoff, and that group has also been active, especially in regard to environmental impact.

Attorney General Lieberman will advise of various legal aspects that are being pursued. In addition to that, I can report that a great deal of effort was devoted by various state agency representatives to reviewing the Iroquois environmental assessment documents, and to development of extensive scoping comments to FERC regarding compliance with the National Environmental Policy Act requirements, need and alternatives, plus environmental issues that should be covered in the Draft Environmental Impact Evaluation which FERC must prepare.

We now await the FERC Draft Environmental Impact Evaluation, which will be studied very carefully and responded to in depth. The monitoring group under Senator Ribicoff was also involved in the scoping comments and I expect will be involved in commenting on the Draft Environmental Impact Evaluation. Environmental concerns must be fully addressed in that Environmental Impact Evaluation, regardless of route, and we will pursue this vigorously to assure such is the case.

The Governor asked the Department of Public Utility Control to seek forecasts of supply and demand from local gas distribution companies. These were provided with the companies showing increasing demand. The final report from the Department of Public Utility Control regarding this matter is not yet issued. We feel it is essential to know how much additional gas is needed and when and to take all appropriate steps to assure that any needed supply comes with the lowest possible rates and with the least adverse environmental impact. Toward this end, we feel very strongly that the Federal Energy Regulatory Commission must address all need, economic, and environmental issues that we have raised. We are especially concerned that FERC review all alternative proposals for the supply of gas to the area, and not just evaluate alternate routes for Iroquois itself.

In addition to environmental efforts by the State, the Office of Policy and Management has had consultants look at the economic impact of Iroquois and is having data base information developed regarding various proposals, which might be alternatives to Iroquois.

In summary, we remain committed to seeing the matter through to decision. We want the decision made in light of study of appropriate energy mix, incremental need, economic and environmental impact, and all alternative proposals known.

Thank you.

STATEMENT OF JOSEPH I. LIEBERMAN, ATTORNEY GENERAL, STATE OF CONNECTICUT

Mr. LIEBERMAN. Thank you, Horace.

And if I may, Senator, to summarize the remarks that I have submitted to you. From the time in May of last year when this proposal was first made by Iroquois, we, on behalf of the State, have continued to raise the same series of questions. Is this project necessary, and if we need more gas, is the Iroquois proposal the most economical, least environmentally damaging way to satisfy that need? We raised those series of questions when the preferred route was the one that went from Salsbury all the way down to Milford. We raise it today, and are glad that you are here in Newtown today, because the questions are just as relevant now with the shorter route.

Senator, we would raise these same questions if this pipeline only went through one community in Connecticut, because the principle is as relevant and as right. This optional expedited procedure of FERC reminds of justice as it was metered out in Alice in Wonderland: First, the verdict and then the trial. Except when it comes to FERC, it appears that the verdict is presumed and there may never be a trial. There may never be a full determination on the question of need. To us that is the central question because we are talking about spending at least $400 million for this proposal. It seems to relevant to ask whether it is necessary. It has strong potential damaging affects on our environment and so it is worth mentioning and asking those questions, and from a lawyer's point of view, this proposal involves and implicates a very important constitutional value which is the power of eminent domain because if FERC approves the Iroquois project, it thereby gives to Iroquois the power to involuntarily take people's property, 60 feet rights of way, without the opportunity for the land owner to say no. Certainly that cannot be done without a public purpose being found, and in our opinion, fundamental to public purpose, is the question of whether this is necessary.

Senator, let me briefly mention three recent developments involving the State of Connecticut and my office in this project.

Just last week the state intervened in FERC proceedings that involve the Tennessee gas pipelines NOREX project. That project envisions increasing the amount of gas being delivered to the Southern Connecticut Natural Gas Company and other New England consumers by making certain improvements to the existing pipeline that serves this area as well as increasing the compression of gas in the pipeline. We have intervened in this case to say very simply that here is a way to bring more gas to Connecticut with minimal construction, no need for additional rights of way and thereby minimal additional threat of environmental impact.

Secondly, we have retained Benjamin Schlessinger who is an expert in gas transportation systems, to develop a data base to study the financial and economic aspects of various pipeline proposals and help us present our case to FERC when and if they hold a hearing. Basically, we are asking Mr. Schlessinger to look at the variety of proposals that have been made for bringing Canadian gas into the Northeast and to help us determine which of those make most sense economically and environmentally.

Third, we are now preparing comments on FERC's proposed adoption of environmental review regulations. The surprising fact is that FERC has never adopted regulations to govern its actions under the National Environmental Policy Act. Two months ago notice was issued to the public that such regulations were being considered. The indication is that those regulations will continue the thinking that is part of Order 436, the optional expedited process, which is to presume need because a proposal is made. That process that we are involved in, Senator, highlights an issue as Congressman Rowland suggested, that goes beyond the Iroquois proposal, to the essence of the federal energy regulatory process itself. And the question is: In its pursuit, presumably, of cutting red tape, has FERC cut some red tape that was really meant to protect the public interest?

We would like to see a Federal Regulatory Energy Commission that simply does not sit back and observe the legal niceties and respond, give deference to the first proposal that happens to be made, even though it may not be the best proposal for satisfying gas needs. We would like to see FERC be more pro active to consider what the needs of this region are and the various alternatives for satisfying them and then help all of us come up with reasonable proposals for doing that.

We took some heart last week when the FERC staff recommended that the agency bump Iroquois off the fast track. However, the FERC Commissioners declined to go along with that recommendation. I hope that under the influence of this Subcommittee and others in Congress that the FERC Commissioners will soon return to accept the wise counsel of their staff and become the aggressive protector of the public interest that I believe Congress intended them to be.

[The prepared statement of Mr. Lieberman follows:]

State of Connecticut

JOSEPH I. LIEBERMAN
ATTORNEY GENERAL

Office of The Attorney General
30 TRINITY STREET
HARTFORD, CT 06106
TELEPHONE (203) 566-2026

Comments of
Attorney General Joe Lieberman
before the
Senate Energy Committee
Subcommittee on Energy Regulation and Conservation
July 20, 1987

Thank you, Mr. Chairman, for this opportunity to discuss Connecticut's energy needs, and the impact of the Iroquois pipeline on those needs, and on our environment.

Let me state at the outset that any rerouting of the Iroquois pipeline in no way diminishes our concern about its effect on our state, and our skepticism about the Iroquois claim that it is best able to satisfy our future requirements for natural gas. In fact, the evidence collected thus far is so diverse and conflicting that it reinforces my own belief that FERC must decide what the facts are, though it is not at all clear the commission is prepared to do so.

By this continued questioning of Iroquois, even after a new route involving fewer communities has been announced, we hope to dispel the argument of those who say we are engaged in nothing more than a "not in my backyard" protest. Rather, our position remains this: if you are going to rip up our backyards and take away our land, it better be necessary, you better have a damn good public purpose, and we had better benefit from it. That position will remain my position even if only one Connecticut community is involved. It should be the position of the Federal Energy Regulatory Commission as well.

Mr. Chairman, I have, as you know, been involved in this issue for more than a year now on many levels. But let me just briefly summarize three activities involving the state and my office that are currently underway:

- Just last week, the State of Connecticut intervened in FERC proceedings that involve the Tennessee Gas Pipeline Company's "NOREX" project. This project envisions increasing the amount of gas being delivered to the Southern Connecticut Natural Gas Company and other New England customers by making certain improvements to the existing pipeline that serves this area, as well as increasing the compression of gas in the pipeline. In this manner, more gas will flow to Connecticut with no in-state construction, minimal construction along existing Rights-of-Way in other states, and no disruption of the Connecticut environment or disclocation of private or public property.

° Second, we have retained Benjamin Schlesinger, an expert in gas transportation systems, to develop a data base to study the financial and economic aspects of various pipeline proposals and help us present our case to FERC when and if they hold a hearing.

° And third, we are now preparing comments on FERC's proposed adoption of environmental review regulations. We will argue that, under the Environmental Policy Act, FERC must study the question of need and analyze alternatives before approving a major energy project, and should not be able to escape these requirements by using the optional expedited process.

This third issue brings me to an important point that I encourage your committee to consider in depth, because it is something that goes beyond Iroquois to the very nature of the federal regulatory process itself. My involvement in this Iroquois debate has given me reason to believe that FERC is in danger of misperceiving its mission in a way that will benefit the utilities, and that could threaten the rights of the average consumer.

FERC needs to be more pro-active. It should be asking the questions and demanding the answers that we find ourselves asking and trying to answer. Following Administration desires to cut red tape, FERC has cut the heart out of its role as arbiter of America's energy needs and how best to fill them. The tape they have cut is the tape that is there to protect the public interest. A refusal to consider the question of need may save time and paperwork, but it is not the kind of streamlining that advances the public interest.

There is hope in the FERC staff, which last week recommended that the agency bump Iroquois off the fast track. For it is the fast track procedure that threatens to turn FERC into a bystander in this process, observing the legal niceties rather than actively engaging the parties in a dialectic to ascertain what is truly the best result for Americans. However, the FERC commissioners declined to go along with that recommendation. I hope they will soon return to accept the wise counsel of their staff and become the aggressive protector of the public interest that Congress intended them to be.

oooooo

Senator **Weicker**. Thank you very much.

First of all, let me say this: I don't think anybody in a position of governmental responsibility, state, local or federal, would agree with the expedited procedure process. Indeed, that is a matter that we have made plain too in the course of hearings down in Washington. So we are all against the expedited procedures.

Now, having said that, I must confess I am left at a little bit of a loss by the testimony of both yourself and Mr. Brown, to the extent of state responsibility. We have a dispute that is clearly going to come to the fore here between Connecticut utilities and those utilities or those gas transmission companies presently serving the state, and you heard Mr. Kumins from the congressional research service. Now it is not as if the State of Connecticut didn't have its own facility for determining need. We have the DPUC. This matter has been out there in the open for one year. Why don't we have the right to hear from the DPUC as to what the need is here in the State of Connecticut and have a timely response. Not waiting to see what the federal government does or doesn't do, but putting their name on the line, letting us know, are there needs or are there not needs vis-a-vis energy here in the State of Connecticut. And I might add the same holds true as far as the environmental impact.

Now, again, here, an environmental hearing will be held by FERC. That hasn't even taken place. Nothing is happening before that takes place, but it is not as if, again, we didn't have our own facility for determining environmental impact. I have not heard from the Department of Environmental Protection here in the State of Connecticut, here in the first route or the second route. So I have to ask a question, coming down as hard as I am on the heads of FERC to assure that what they do is open, honest and thorough, exactly what it is the State of Connecticut is doing with those facilities that are specifically charged with the responsibility of giving facts to the people of this state.

Mr. **Lieberman**. A good question and a fair question.

Recently, earlier this year, the State of Connecticut submitted these scoping comments to FERC as part of its preparation of the Draft Environmental Impact Statement. In those comments we have questions, serious questions raised by DEP and a full-fledged report by a consulting firm, QED, that we retained to deal with questions of need. So, I guess let me step back and put it this way: These are complicated questions, both the environmental impact question and the need question. But we have had the assistance and will continue to have the assistance of both the Department of Environmental Protection and the DPUC, and may I say, because we think it is necessary, with the help of OPM, private consultants, both in the needs area and in the environmental impact area, to help us put on our case.

What we are asking for—because we have a position here, we are advocates—we really think, going back to your opening statement, Senator, none of us will have the ability to make the final judgment here. The question is, is this process going to be fair and open? And I agree with you, that is the central question.

We want FERC, either or hopefully both in its certification procedure or in the environmental procedure, to hold what amounts to a trial, a full-fledged hearing in which we can submit witnesses that can be cross examined by the other side. They will submit witnesses and we will cross examine them. I think in the nature of this system, that is the way we are going to get to a full and complete answer. But we will do our part through these state agencies to present as much evidence and opinion as we can.

Senator **Weicker**. Well, it would be very helpful, for example, if even now we had DPUC give to all of us a statement relative to need. Now, are we going to have that statement? And if we are going to have it, when are we going to have it?

Mr. **Brown**. Senator, I can tell you that the DPUC did receive the forecast of supply and demand from the local distribution companies and that, I believe, was a first, to have those.

Senator **Weicker**. And what did that say?

Mr. **Brown**. The companies, with varying methodologies, projected varying increased demands. Those were reflected in a draft DPUC report which said that they felt overall some of the demand was understated and some of it was overstated. But they saw an increased need. They have not yet issued their final report. The draft report had opportunity for comment and the draft report will be forthcoming. I don't have the date for that.

Senator **Weicker**. Well, did the DPUC lean more toward the conclusion of Mr. Kumins who says that there is no need, or more to the conclusion of the utilities that says there is an increased need?

Mr. **Brown**. I think until we see the final report it would be unfair to guess what that may say. I would also obviously say what we have tried to say all along. In addition to the need there is the question of timing and of the best means of getting that gas to the State of Connecticut. And we are concerned, therefore, with a thorough evaluation of alternative proposals to getting needed gas here.

Senator **Weicker**. Yes, but the problem is, and it is a problem that confronts us—let me put it this way: It would be great if Algonquin and Tennessee Gas Transmission would go ahead and supply additional gas at contractually reasonable prices. That is not the message that is being received, at least by the utilities in Connecticut. That would be great. We wouldn't even have to be here worrying about an additional pipeline or if there was another way that we could get additional supplies without building a new pipeline, that would be great. We all concede that. But I think what worries a lot of people, and I think this is one of the matters that has to be resolved, is you can't come at this thing piecemeal. The environmental impact is enormously important to the communities and individuals living along the route. That has got to be attended to, the energy situation in the State of Connecticut. I don't want to be left in the position we were in 10 years ago with all the politicians running around here wringing their hands over high energy prices when they did not do a damn thing about it.

Now I have that draft report in my hands here. And the DPUC says the Authority has no reason to doubt that the demand for natural gas, particularly interruptable service will increase. And that is not very comforting, to me anyway. And I don't think we can avoid these things and postpone them. As I said, let's come down on the head of FERC and make them do their job in the open and honestly. But I think we are owed by our own state agencies a very candid response to the problem at hand, both environmentally and as to the price of energy.

Mr. LIEBERMAN. Senator, I can assure you that we are going to do our best to make sure that the state agencies give you and FERC that, but the ultimate decision is FERC's. And I must say about the DPUC report that at this point in its draft stage it seemed to me to be primarily a report of what the utilities own estimate of their own need is. And I, as an advocate in this, want more than that, and that is why we are going to some outside experts as well.

I also want to say to you very briefly that I don't think that everyone here does agree that if Tennessee or Algonquin could supply the additional gas that that is the best way to do it. Let me say this: FERC has not made it clear that it agrees with that because the process is structured in a way, as you know, where the first to the gate has the benefit of the doubt. And I think, you know, while Iroquois may be the hare in this case, there may be a few tortoises out there who ultimately can satisfy the need in a better way for the State of Connecticut.

Senator WEICKER. May I ask another question? Has the Department of Environmental Protection issued any sort of a statement, either as to the original route that was discussed up in Torrington or the present route, have we heard from our own Department of Environmental Protection?

Mr. GUNLING. Senator, I wonder if I might respond?

I believe that the problem that we have in this case is that the State is a participant before FERC is an advocate and the state agencies are actively working to put together a case before FERC, the body that has the final decision-making authority in this matter. It has the congressional authority to determine need, alternatives, and to determine which pipeline could best satisfy the energy needs of any particular region. I think that for the individual state agencies to attempt to make final decisions at this point in time could be counterproductive and that at this point in time they are concentrating their efforts at making information available to the decision making body which is FERC. For the State, DPUC to say, "We do not need any gas in Connecticut," would not do anything for this process that we are currently involved in because FERC would then still have to look at the need for how much gas we need when we need it. For the DEP to say this is going to have a tremendous environmental impact would not help the process along.

Senator WEICKER. Why wouldn't it?

Mr. GUNLING. Because we are already saying that to FERC at this point, and we are raising the questions. But all you would have essentially is the State issuing a totally pre-emptable decision by FERC.

Senator WEICKER. Well, I will tell you one thing: I would rather have people from the State of Connecticut responding to these questions than a bunch of bureaucrats down in Washington, D.C. I would rather have my own Department of Environmental Protection here in Connecticut make it very clear that this is going to partially impact on the environment than a bunch of bureaucrats in Washington who have never seen the State of Connecticut. I would rather have our own people in the Department of Public Utilities say we do or we do not need gas.

Now, what I am trying to say is that I am satisfied, as is indicated by the Attorney General, that these matters are being pursued, fine. But what I am also trying to say is: Let us have some absolutely definitive statement here at some point and I am trying to ask the question: When are we going to reach that point where we will be heard from, by the State of Connecticut?

Mr. **Brown**. Senator, let me just address the environmental side for a moment, if I might. I assure you that the Department of Environmental Protection and indeed the Department of Transportation and the State Historical Commission and the Department of Agriculture in its Aquaculture Division did indeed review the environmental evaluation done by Iroquois or participants, along with our office and most assuredly the Attorney General's office in the preparation of a very, very extensive report that went to FERC saying, "These are the environmental concerns we have. These are the areas that we want you to be sure to cover in the Draft Environmental Impact Statement that you, FERC, have to prepare regarding this thing," and those very same agencies will be brought back in to participate in the review of that document when it is forthcoming from FERC.

Senator **Weicker**. I have further questions for the record which I will submit for response to the record. Is there anything further that either one of you would like to say?

Mr. **Lieberman**. No, thank you for the opportunity to be heard and we look forward to working with you and others in Congress and others in Washington and trying to do what we see as our job which is not to stop gas from coming into Connecticut, but to make sure, if we need it, that we know how much we need and that we bring it in on the transmission system that does least damage to our State.

Senator **Weicker**. I appreciate your remarks. Thank you very much.

Mr. **Brown**. Thank you, Senator.

Senator **Weicker**. Our next panel consists of the Honorable Carol Herskowitz, State Representative from Southbury, Connecticut.

Carol, it is good to have you here.

The Honorable Alberta Jagoe, the Mayor of the City of Milford, Connecticut, and the Honorable Lenny Assard, the First Selectman of the Town of Bethlehem, Connecticut.

Carol, why don't you lead off?

STATEMENT OF CAROL A. HERSKOWITZ, STATE REPRESENTATIVE, SOUTHBURY, CT

Ms. **Herskowitz**. Good morning.

I would like to thank you, Senator Weicker for initiating this morning's proceedings. I believe the pipeline issue is of monumental importance to the people of Connecticut as it impacts upon the environment, the economy and the rights of individual property owners in this state. Mass confusion now abounds in regard to this issue, and I feel that you, Senator Weicker, have done a great deed by stepping in and insisting that Iroquois and FERC become more accountable to the people of Connecticut whose lives their decisions will affect. My constituents certainly appreciate this. They appreciate your efforts and I am sure that thousands of others in Connecticut do also.

As I am sure you all know, this hearing was convened in response to a private meeting held between representatives of Iroquois and FERC on March 3, 1987. I was distressed to find out that procedures were the topic of discussion at that private meeting, that had it not been for Senator Weicker the regulator and the regulated may have been able to secretly decide what procedures should be used in evaluating the latter's application. How can FERC be expected to make an objective decision on Iroquois's application if Iroquois alone is allowed to have input on the methodology used for decisionmaking?

In my opinion, this private meeting and its subject matter serves as reason enough to deny further consideration of Iroquois current application. However, I am not without a number of other reasons.

For instance, two of the more important elements that must be considered in regard to Iroquois' application are environmental impact and financial feasibility. Assuming that the opinions of intervenors and of the people of this state are relevant, two things must be known in order for individuals to take a position on the issue: Number one, what the route of the pipeline will be; and, number 2, who the investors in the project are. That is where the mass confusion I mentioned earlier comes in. The proposed route of the pipeline has changed numerous times, making a detailed assessment of environmental impact impossible, and investors are starting to come and go on a regular basis. The route was just changed again to accommodate the loss of South Jersey Gas as an investor and the addition of Central Hudson as a shipper. Further, if the Iroquois project is not approved by August 1, then Central Hudson has the right to opt out of the project, which could again change the financial profile and probably the proposed route of the pipeline. Iroquois has stated its belief that opposition to the project has declined in recent months, and I submit to you that if that is true it is because people are frustrated by this confusion and feel helpless to voice their position on a proposed project that has no stable elements whatsoever.

Actually, one good thing did come out of that private meeting in March, in that the question of need has been raised as a criterion for approval of Iroquois' application. A number of studies have been done in regard to this question of need, and in every case Iroquois has striven to use these studies to their advantage. For instance, a study done by QED Research for the Connecticut Office of Policy and Management disputed the need for the Iroquois pipeline in Connecticut and stated that the project could put Connecticut consumers at risk. In response, Iroquois has promised to, and I quote "respond in due course to the QFD study, the quality of which should embarrass both its authors and its sponsors."

It has not embarrassed me. This is hardly a constructive criticism of QED's findings, and in my opinion it demonstrates an unwillingness on the part of Iroquois to seriously consider the concerns of other parties. The Connecticut Department of Public Utility Control also has done a study of Connecticut's future projected natural gas needs. Iroquois has tried to use this study to its advantage, even though, number one, the study has not yet been finalized and accepted by the Department, and I understand there are going to be many changes to the draft. And, two, the data used were furnished exclusively by the utility companies, investors in the pipeline and is criticized as misleading in the draft report. The DPUC's study was meant to be a preliminary assessment of the future demand for natural gas in Connecticut, and not a formal evaluation of Iroquois' claims and projections.

As far as I can tell, Iroquois and its investors have not done any formal marketing research to study this question of need. Really, all they have done is either criticize or misuse the efforts of others to project future need and issued misleading statements to the public. Recently, Northeast Utilities issued a statement to the effect that there may be a number of brownouts this August. In my opinion, such a statement could lead the public to the false conclusion that current sources of energy in Connecticut are inadequate. Actually the problem is poor planning, as three nuclear power plants are going to be shut down at peak demand time for planned maintenance. Peak demand usually occurs during 30 days of the year, and one would think that maintenance could be scheduled around them. Also, when Millstone III was brought on line last May, Devon units 3, 4, 5, and 6 were closed, another example of poor planning. I fear the public could be mislead, due to a lack of information, to think that Connecticut needs the pipeline when resources may actually be sufficient. In order for Iroquois' application to be accepted, they should be required to prove beyond a doubt that there is a need for all the gas they could transport at capacity. Also, for their assessment to be accepted, it should be done assuming good planning and reasonable conservation efforts and incentives on the part of utility companies. Furthermore, they should be required to do a separate assessment for each state, as I feel it would be wrong to take the land of Connecticut citizens in order to supply gas to New York and New Jersey.

According to Iroquois, the State of Connecticut and its Governor and its congresspersons and its agencies and its legislators and its people are all wrong in their concern over the proposed pipeline in Iroquois' presumed need for the gas. I feel the onus is on Iroquois to demonstrate to everyone's satisfaction that the consumers of Connecticut, not the utility companies, really want and need the gas they propose to ship.

I saw an estimate recently that some of the new pipeline gas would be used to supply one million residential customers. Well, not one of those one million people has called me in favor of the pipeline. As a matter of fact, no one has.

In conclusion, I recommend that full evidentiary hearings be held in the State of Connecticut to examine both the need for gas in this state and the procedures by which the need should be determined. Furthermore, I respectfully request that all intervenors be provided with formal opportunity to comment on both of these items.

Again, Senator, we thank you very much.

Senator WEICKER. Thank you very much, Carol.

Mayor Jagoe.

STATEMENT OF ALBERTA JAGOE, MAYOR, MILFORD, CT

Ms. Jagoe. First, I would like to thank you, Senator Weicker, for giving me the opportunity to speak today about the affects of the Iroquois pipeline proposal on the City of Milford. As you may know, a study prepared by a consultant for the State of Connecticut raises some serious questions about the demand forecast and need for additional gas in our state. As you are probably also aware, serious questions exist about whether the financial risks of the Iroquois proposal would be borne by the applicant as required or by gas consumers. We certainly want to know in very specific terms what benefits would accrue to Milford and to Connecticut so as to justify the environmental havoc the proposal wreaks.

Because Milford has been targeted as the point at which the Sound crossing will occur, the potential for damage to our area, both environmental and aesthetic, is tremendous. Shoreline, wetlands, and precious natural resources in the City of Milford face irreparable damage if this pipeline is permitted to go forward.

First, is the threat of leachate contamination from the ground water in Silver Sands State Park migrating to the nearby beaches and draining into Long Island Sound. Despite a purported study of this area by the applicant with results to the contrary, we have indisputable and documented evidence, as does the Connecticut Department of environmental Protection, that there is significant ground water contamination where the site was formerly used as a landfill. As has been set forth in a report to the City of Milford by its consulting engineer, the proposed pipeline route will almost certainly destabilize the present containment of this contamination and offer ready drainage of the contaminated water into the Sound. This will occur because the pipeline proposes to cut a 75 foot trench from the higher ground at the Park down to the beach and into the bed of the Sound itself. The engineer's report raises serious doubts about the effectiveness of the proposed mitigation measures. The impact of contamination on swimming, fishing and wildlife cannot be overemphasized.

Second, is the potential for total beach erosion from Charles Island to Milford Point and a significant impact on the wildlife sanctuary at Milford Point. The proposed route will interrupt the Charles Island sandbar with a wide, deep trench opening the shorefront directly to the Sound. The proposed route is also located directly beneath the new transient anchorage area in Milford Harbor, which the environmental report overlooks. The alternate routes, on the other hand, would have a devastating effect on over 6,000 acres of underwater shellfish leases which have made Milford a chief shellfish production and marketing area.

Third, I would like to bring to your attention the potential damage to the Mondo Ponds recently acquired by Milford for development as a recreation area. The proposed pipeline comes as close as 75 feet to the Ponds in some areas. It is clear that because of the natural grade of the land, rainfall during construction will result in erosion, siltation, and, therefore, contamination of the Ponds.

Fourth, the proposed pipeline construction, according to preliminary maps, is within 125 feet of the Kennedy Elementary School Building. The five to six foot trenches and the storage of heavy equipment during construction pose obvious safety risks to the very young children constantly in this area. A post-construction gas leak here could be disastrous. The alternate route proposes to take homes along West Avenue, also unacceptable.

Fifth, the proposed construction is directly through Beaverbrook, which is wetland and natural habitat for some of the most beautiful and rare plantlife and birdlife in New England. You should be aware that almost 90 percent of the land affected by the pipeline in Milford is wetland.

Finally, it is clear in all of the Iroquois material and reports that the aesthetic and human impacts of the proposal are avoided or minimized. For example, the fenced-in staging area of 10 thousand square feet at the landfill site on Long Island Sound in Milford will drastically reduce public access to the beaches and create a permanent eyesore on an otherwise beautiful and unspoiled area. We believe Iroquois should be called to account for these impacts in a manner which demonstrates respect for the public interest.

Despite the volumes of material which have been provided by Iroquois, I cannot support the routes selected in view of the enormous inconvenience to Milford citizens during construction and in view of the potential for permanent harm to our beaches, to our shellfish industry, and to our wetlands. I remain unpersuaded that the benefits to Milford do not outweigh the potential risks.

No one wants to see a shortage of natural gas. Many of us prefer this type of energy over nuclear energy, but we must way the benefits against the cost. In this case the cost would be the risks to the safety of our children, the destruction of our shoreline, disruption of our shellfish beds, contamination of Long Island Sound, and encroachment into acres and acres of wetlands. The cost is too high. It is not worth the risks.

I thank you for allowing me to have this opportunity to speak to you, and I hope you can help us.

Senator **Weicker**. Thank you very much.

I am going to wait and then I have questions for you.

First Selectman, Lenny Assard.

STATEMENT OF LEONARD J. ASSARD, FIRST SELECTMAN, BETHLEHEM, CT

Mr. **Assard**. Thank you, Senator.

My name is Leonard Assard. I am the First Selectman of Bethlehem and have been since November of 1977. It is a part-time position in Bethlehem. I am also a registered professional engineer in the State of Connecticut and currently employed by one of Connecticut's largest water utilities as its superintendent. Bethlehem is a very small community, 2,700 people, located in the Southern Litchfield County. Bethlehem, along with many other Connecticut towns, has been identified as being impacted by either the north-south route or the spur to Farmington, or in Bethlehem's case, both, if alternative 3 is the route to be approved.

We have done some of our work. We have filed for intervenor status and have been granted that by FERC. We participated in the FERC hearings in Torrington on the scope of the Draft Environmental Impact Statement, and we would like to outline, briefly outline, some of those issues we raised in Torrington. Basically they are as follows:

Safety and Health: We were concerned with both police and fire protection both during construction and operation. Bethlehem, like many other small towns, is protected by a volunteer fire department which has no experience, no equipment, and limited funds to become trained to respond to pipeline emergencies. We estimate that perhaps only 10 fire fighters would be available to respond to an emergency during normal working hours since most of our volunteers work out of town. That is the case whether there is a brush fire, pipeline fire, house fire or an automobile accident in town. We have the same situation with respect to police protection. We use part-time police officers and purchase the services of a resident trooper from the State of Connecticut.

We can see on other nearby utility rights of way what has happened in the past. We will become a trail for mini bikes, all terrain vehicles, snowmobiles and the like. The noise is devastating on the wildlife and devastating on the adjacent property owners.

We have problems with gaining access to these locations because of the various terrains that have to be covered in an emergency to access a victim, whether it be an unauthorized tresspasser, a construction worker or anyone else.

Bulky waste disposal is a problem: We recently reached capacity in our land fill, since the time of the Torrington hearings, and we are operating on borrowed time now. We expect to be trucking our refuge to Hartford, to a regional landfill and then eventually to a resource recovery plant. That is mixed municipal refuse.

We have the problem with bulky waste disposal and as I understand it stumps that would be excavated during the construction process are to be considered bulky waste. We have no place to get rid of those, and if the state says that that is our responsibility, it is going to require the expenditure of tens of thousands if not hundreds of thousands of dollars along the pipeline route.

Radon gas is another issue: Bethlehem was selected as one of the several sites in Connecticut to be tested for radon gas, and lo and behold, we are a hot spot. The radon gas is naturally occurring in the granite formations underground and is released during excavations and released—as a matter of fact, it is released at all times. Radon is reportedly a carcinogen when inhaled. We are not sure whether or not excavation to the radon gas problem or whether it is a detriment, and we feel that this has to be completely studied by FERC to determine what impacts, if any, that will have on our people, the people along the route.

Then we get the impact on development: We commissioned a soil and water capability study in 1982, and we found that the minimum lot size that we could use in Bethlehem was an acre and a half, exclusive of wetlands, for single family homes. Other criteria that we used, including waste water disposal and water supply was to renovate your waste water to drinking water standards before it left the property lines. We point this out to show that our development potential is limited and our various soils are fragile. We don't know how many existing home sites would be impacted and how many future home sites would be lost or other developable property will be lost to development because of the pipeline rights of way.

We are entirely dependent on individual wells for water supply in individual subsurface sewage disposal systems, and we hope to stay that way. Development cost for water and sewer are astronomical. The impact of the pipeline and the right of way is more than a double-edged sword. First, the town may suffer the impact reduced property values along its route; and then, because the right of way may have removed some undeveloped property from the tax rolls and from being developed in the future, the town suffers that loss of revenue.

We would like to speak a little bit about Order 436: As I recall reading in the papers last week, there are only two people in the country, plus Iroquois, who are in favor of 436, and that was the two commissioners of FERC. It is our understanding that the 436 process, that Iroquois in this case does not have to prove need for the gas, provided they assume the financial risks for the projects. Whether or not Iroquois has assumed all the financial risk is subject to great debate and far beyond my capacity to determine. What has become apparent to us though is that if FERC has granted this permit under 436, they will then have granted eminent domain over private property on the assumption and without proving that this project is necessary for the public convenience and good [illegible] these particular locations on this particular route. This is totally unacceptable to us.

If under 436 public convenience and public need and convenience are assumed, no evidentiary hearings on need are required and all financial risks are to be assumed by the applicant, then those financial risks must include the requirement that the applicant negotiate rights of way without benefit of eminent domain with individual property owners. In a nutshell, if no proof of need and no hearings, then no eminent domain. It seems to us at least that a 436 proceeding was designed to aid in the process of deregulation, but appears to be neither fish nor fowl. We wonder if this process was intended for a project of this magnitude, and even if it is appropriate in this case. If the industry is to be deregulated, then it should enjoy the rights, privileges and risks of private enterprise. One of those risks has to be the negotiations with property owners for rights of way and easements.

If, for example, an industrialist obtains all the necessary permits, including planning, zoning, building, water supply, waste water disposal, air pollution, et cetera, for his business, he is not granted eminent domain over private property, but must negotiate to purchase the property in the open market on which to conduct his operations. We believe strongly the very same principles should apply here. [Applause.]

While Iroquois may have assumed the financial risk for the construction, they have not assumed nor do we believe they will assume the financial risk and impact to be suffered by the individual property owners and the municipalities throughout its path.

Should the pipeline fail financially we doubt anything will be done to remove the Iroquois easements from the affected property owners and the land records; engage in a reforestation plan to restore woodland cleared as a result of their operation; to remove the pipe; and to restore property values to their prepipeline level.

We all understand that at times individuals may have to give up their properties for the public benefit, be it for highways, flood control projects, dams, water supplies, schools, or other public utilities. But in these cases the power of eminent domain is only granted after an exhausting determination of need has been performed. It is our understanding that this type of determination is not necessary under a 436 proceeding.

The issue of eminent domain to us is a serious one. At issue here, aside from granting eminent domain to a company which reportedly is 50 percent held by foreign interest, is the ability to take private property without ever having to prove through evidentiary hearings the need for this particular project in the particular location or locations proposed. We believe this to be a serious constitutional question and respectfully ask that you committee research this issue and correct through the legislative process any defects or inequities found.

Thank you very much, Senator, for allowing us to speak.

[The prepared statement of Mr. Assard follows:]

TOWN OF BETHLEHEM
Selectman's Office

Bethlehem, Connecticut 06751

July 16, 1987

United State Senate
Committee on Energy and Natural Resources
Subcommittee on Energy Regulations and Conservation
Washington, D.C. 20510-6150

RE: FERC Docket Nos. CP86-523-000
CP86-524-000

Iroquois Gas Transmission System

Honorable Committee Members:

My name is Leonard Assard. I have been the First Selectman, a part-time position, of the Town of Bethlehem, since November, 1977. I am also a registered Professional Engineer in the State of Connecticut, and am currently employed by one of Connecticut's largest municipal water utilities as its Superintendent. On behalf of Bethlehem and its citizens I wish to thank the committee members for providing us the opportunity to speak to the issues here at the local level.

The Town of Bethlehem, a community of approximately 2,700 people is located in Southern Litchfield County. Bethlehem, along with many other Connecticut towns, has been identified in maps and plans provided by both FERC and Iroquois as being impacted by either the main North-South line or the spur line to Farmington or in Bethlehems case both lines if one of the alternate routes is approved.

Bethlehem and many of its citizens has filed and been granted intervenor status by FERC. We participated in the FERC hearings held in October in Torrington, Ct. and provided FERC with comments concerning the scope of the Draft Environmental Impact Statement in a timely manner. The items outlined below are those we asked FERC to include in the Draft Environmental Impact Statement. While we hope FERC staff will consider and act on those comments we have no assurance that this will be the case.

1) Safety and Health - We are concerned with both police and fire protection both during construction and operation. Bethlehem like most other Litchfield County towns is protected by a volunteer fire department which has no experience, no equipment and limited funds to become trained to respond to pipeline emergencies. In Bethlehem we estimate that only 10 fire fighters would be able to respond to an emergency during normal working hours since most of our volunteers work out of town. We have virtually the same situation with respect to Police Protection. Bethlehem is protected by the use of part-time police officers and the services of a Resident State Trooper purchased from the State of Connecticut.

Based on what can be seen on other nearby utility rights of way, we are convinced that any right of way will become a trail for mini bikes, all terrain vehicles, snowmobiles and the like. The noise generated by these vehicles will no doubt have a deleterious effect on both the wildlife and the adjacent property owners, further interrupting their peace and quiet and further degrading the quality of life for these citizens.

If as happened in the past an injury to a worker or a trespassed were to occur either during construction or operation we question the ability of emergency responders (police, fire, or emergency medical personnel) to quickly access the victim because of the various terrain, soils, wetlands and water courses that may have to be crossed. We have experienced this type of delay in Bethlehem along private roads because of their narrowness and lack of roadside maintenance.

2) Bulky Waste Disposal - The Connecticut State Department of Environmental Protection requires each of its municipalities to provide a location for the safe and sanitary disposal of solid waste generated within its political boundaries.

The town of Bethlehem is presently served by a sanitary landfill which has reached capacity and is operating on borrowed time. We fully expect our refuse disposal costs will triple since refuse will have to be hauled to a regional landfill, possibly as far away as Hartford.

We have no site in Bethlehem which can be approved by Connecticut DEP for either creation of a new landfill or expansion of the existing landfill. The disposal of brush, trees, stumps, and other construction material must be considered in the environmental analyses and should be be disposed of on site. To require each community to dispose of these bulky wastes will mean the expenditure of tens of thousands if not hundreds of thousands of dollars in local tax money.

3) Wetlands - Iroquois in its application indicated they would appear before local boards and commissions to obtain the necessary permits including wetland permits. We request FERC to require those applications in any town or village through which the pipeline or spur may pass.

4) Radon Gas - As part of a statewide study of the occurance of the radon gas in the ground waters of the State of Connecticut several homesites in Bethlehem were tested, each of these tests were positive indicating that radon gas was present. Radon is reportedly a carcinogen when inhaled. It is felt that this is a naturally occuring substance found in underlying granite bedrock deposits. We feel and respectfully request FERC to study the impacts of execavation and blasting on the release of radon gas above which already occurs.

5) Impact on Development - Several years ago, Bethlehem commissioned a soil and water capability study to determine what intensity of use the soils would tolerate assuming that public water and waste water facilities would not be available in the future. The results of this study indicated that at least 1 1/2 acres exclusive of wetlands would be the minimum lot size required to properly locate the water supply well, the subsurface sewage disposal system and the reserve area for expansion or replacement of the subsurface sewage disposal system. Other criteria used in this study was the renovation of waste water to drinking water standards prior to leaving the property and no net increase in runoff (i.e. no downstream flooding). We point this out in attempt to show that our development potential is limited and our various soils fragile. Since we don't know the specific route of the pipeline we cannot at this time predict how many existing occupied homesites would be impacted nor how many future homesites or other developable property would be either lost or impacted as a result of the pipeline right of way.

Bethlehem is entirely dependent on individual wells for water supply and individual subsurface sewage disposal systems for waste water disposal and hopes to stay that way. Development costs for public water and sewer would be astronomical. The impact of the pipeline and right of way is more than a single edged sword. First the town must suffer the impact of reduced property values along its route, then because the right of way may have removed some undeveloped land from being developed in the future the town suffers the loss of that potential tax revenue.

As we understand the present permitting process, FERC is considering this project under the 436 Optional Expedited Certification Process.

It is also our understanding that by using this untried and unproven process, the applicant, in this case Iroquois, does not have to prove a need for the gas, provided they assume the financial risks for the project. Whether or not Iroquois has assumed all the financial risks is subject to great debate and beyond my capacity as a Selectman to determine. What has become apparent to us is that if the FERC permit is granted under 436 then Iroquois will have been granted eminent domain over private property on the assumption, and without proving, that this project is necessary for the public convenience and good. This is totally unacceptable.

If, under 436 proceedings, public need and convenience is assumed, no evidentiary hearings on need are required and all financial risks are to be assumed by the applicant, those financial risks must include the requirement that the applicant negotiate rights of way without benefit of eminent domain. Summarized in a nutshell -- if no proof of need and no hearings, then no eminent domain.

It seems to us at least that a 436 proceeding was designed to aid in the process of deregulation but appears to be neither fish nor fowl. We wonder if this process was intended for a project of this magnitude and if it is even appropriate in this case. If the industry is to be deregulated then it should enjoy rights, privledges and risks of private enterprise. One of those risks has to be the negotiations with property owners for rights of way and easements.

If for example an industrialist obtains all the necessary permits including planning, zoning, building, water supply and waste water disposal, etc. for his business he is not granted eminent domain over private property but must negotiate to purchase property in the open market on which to conduct his operations. We believe very strongly the same principle should apply here.

While Iroquois may have assumed the financial risk for construction they have not assumed nor do we believe they will assume the financial risk and impact to be suffered by the individual property owners and municipalities throughout its path.

Should this pipeline fail financially we doubt anything will be done to:

1) Remove Iroquois easement from the affected properties, and land records.
2) Engage in a reforestation plan to restore woodland cleared as a result of their operation.
3) To remove the pipe.
4) Restore property values to their prepipeline level.

We all understand that at times individuals may have to give up their properties for the public benefit be it for highways, flood control projects, dams, water supplies, schools, or other public utilities, but in these cases the power of eminent domain is only granted after an exhausting determination of need has been performed. It is our understanding that this type of determination is not necessary under a 436 proceeding.

The issue of eminent domain is a serious one. At issue here aside from granting eminent domain to a company which reportedly 50% of which is held by foreign interest is the granting the ability to take private property without even having to prove through evidentiary hearings the need for this particular project in the particular location or locations proposed. We believe this to be a serious constitutional question and respectfully ask that your committee research this issue and correct through the legislative process any defects or inequities that are found.

Page Five

Once again on behalf of Bethlehem and its citizens thank you for the opportunity to speak before your committee.

Very truly yours,

Leonard J Assard

Leonard J. Assard P.E.
First Selectman

LJA/c

Senator **Weicker**. I think that it is especially important, insofar as this panel is concerned, that you and the other communities along the way, really keep your focus now on the environmental impacts of what is being proposed here. That is an enormous concern and is best, I might add, addressed, I think, by the local communities themselves and the State of Connecticut, as I indicated in my earlier remarks.

As you know, FERC has indicated that they will hold environmental impact hearings in the state. They were supposed to have done that in August. It is my understanding that they have delayed that until they resolve the matter of expedited procedures. In any event it is going to happen and it is something, I might add, we want to happen in terms of having them come in here and presenting to them the impact that this pipeline would have environmentally, as has been well addressed by all three witnesses.

So I hope that on that matter of the environment, you are preparing now, in terms of your testimony before FERC on the environmental impact.

Carol, I would hope that somebody who is associated with the State Legislature, that you would use every pressure that you can generate in getting responses out of the Department Environmental Protection here in the State of Connecticut. I think that is clearly owed, in addition to the response of the communities themselves.

One last comment: As everybody has indicated, Congressman Rowland, Attorney General Lieberman, all of you, I know of no one—this Senator included—I know of nobody that is in favor of the expedited procedures, feeling that the process is subverted by that kind of a procedure and the necessary safeguards taken away, putting it strictly on the basis of risk insofar as the investors are concerned. I think that is something none of us are willing to live with. So I think it should be made clear here that hopefully FERC will go ahead and act on advice of its own staff, which is not to use those expedited procedures. But I can also assure you that from a federal point of view, I will do whatever is necessary to make sure that expedited procedures will not be used. I think that much should be clear. [Applause.]

My question to all of you then, just a brief question, is: Is preparation proceeding relative to addressing the environmental impacts on your local communities or your districts, as the case may be?

Ms. **Jagoe**. The City of Milford is determined to do everything possible to stop this pipeline from coming into our town and we are using every means that we have, and have hired a consulting engineer to assist us. The problem that some of the communities face, Senator, is that our resources are limited as to just how much money we can spend to hire experts to help us, and that is why we are relying so much on our federal and state officials. We really need your help.

Senator **Weicker**. Have you addressed communication to the Department of Environmental Protection, asking them to take this up?

Ms. **Jagoe**. The Department of Environmental Protection, I believe, has been helpful. They provided a great deal of information to the Governor's Pipeline Monitoring Committee and whenever we call on them, they are willing to help.

Mr. ASSARD. Senator, on behalf of Bethlehem, we have provided comments to FERC on the scope of the Environmental Impact Statement. We felt that those were important to look at, in addition to those the FERC staff had already identified. In addition to that, we have in Town Hall a compendium of information on the pipeline. Many of our citizens who have been identified as perhaps being on the pipeline have provided FERC with their own environmental impact statement. Many of the citizens are spending their very own money to have maps and plans drawn of their property, locating various features of their property, such as their well, their septic system, that sort of thing.

We do intend to participate on future hearings on the environmental impact of these projects.

One point I would like to make, another one about 436: There are areas, and I think we all have to recognize, where there would be very minimal impact from the pipeline. We can't sit here and say that there is no place in Connecticut that the pipeline could not be installed without doing any harm at all. Despite that, eminent domain would still apply to that property as well, and that is what we are very, very much concerned about under a 436 proceeding, that even if the environmental issues were abated and there were none, the problem of eminent domain is still there, and that is one of our biggest concerns.

Senator WEICKER. Carol.

Ms. HERSKOWITZ. Yes, Senator. I am very glad to hear you say that you are going to be in opposition to the use of Order Number 436. In the towns that I represent along the district we, of course, as I believe Len has, have the Housatonic Valley helping us with regards to the environmental issues, and I believe they have gotten help from the Department of Environmental Protection. However, my feeling on this issue has always been, of course, the environment is one of, if not the most important issue here. But I believe we have a problem with Iroquois if we try to speak to just the environmental issues.

I have gone to many public hearings in many towns in regards to the environmental issues and if a citizen stands up and they yell and holler enough that you are going through an environmental sensitive area, Steep Rock Park in Washington, after a while Iroquois' representatives will say, "Not to worry, we can move the pipeline a little bit." Well, they can keep moving that pipeline until they get permission from FERC and then the construction trucks are going to come and we aren't going to have anything to say about it and that is what frightens me in regards to the environment issues.

I have always felt if they only had to prove that they could find a route which would not be too bad for the State environmentally that they had a good chance of winning this issue. But I think, and I still believe that if they have to prove a need in the State of Connecticut, and I think the need has to come before the route, then they will have a difficult time giving us this pipeline.

Senator WEICKER. I thank you all for your testimony very much. Thank you.

[Subsequent to the hearing Ms. Jagoe submitted the following:]

City of Milford, Connecticut

Founded 1639

ALBERTA JAGOE
MAYOR

August 7, 1987

The Honorable Lowell Weicker, Jr.
United States Senator
303 Hart Senate Office Building
Washington, D.C. 20510

Dear Senator Weicker:

In response to the questions you raised in your letter dated July 31, 1987, I would like to submit the following response:

1. Do you feel the expedited process that the Federal Energy Regulatory Commission may use in considering the pipeline proposal will be adequate?

   First, inasmuch as the expedited process operates on the basis of a presumption of need and thereby eliminates the otherwise onerous burden on an applicant to demonstrate: (1) that there is a specific and qualifiable need for a project such as the one proposed; (2) that the specific project proposed is the best and most reasonable method of dealing with the existing need in comparison with all other pending proposals and in terms of any other alternative, whether or not such alternatives have yet been proposed, an expedited procedure appears to be inadequate for a project of tremendous magnitude. Second, because of the number of times the proposed route of the applicant's pipeline has been altered and because it takes the general public considerable time to (a) learn of changes, and (b) assess the impact, rationale and benefit/detriment of each change, an expedited proceeding on this project is inadequate. Third, looking at the question from a common sense perspective, it appears that any project of significant environmental magnitude should not qualify for any shortcuts in federal, state or local scrutiny. In this respect Congressman Rowland's bill proposing that any pipeline 25 miles or longer be disqualified from the expedited proceeding seems appropriate.

2. The economic environmental and safety impacts to your community may well be very significant. Has there been any response to your concerns and comments?

   In my opinion, no special consideration has been given to the specific concerns raised by the City of Milford by any offical at any level of government. In view of the questions raised by us in the scoping report and in view of the follow up questions posed to the applicant by the FERC in response to the concerns raised in Litchfield County, we found the lack of response to Milford rather surprising.

3. How would you recommend the state and federal government consider such large pipeline proposals?

   We would like to see all pending gas pipeline proposals considered together and judged by the same criteria in a single proceeding so that we could better understand and compare the relative merits and pitfalls of each project that we now must learn of second and third hand. Additionally, public hearings should be held in each affected community.

Sincerely,

Alberta Jagoe

Alberta Jagoe
Mayor

AJ:es

Senator **Weicker**. At this time, Michael Pacowta, who is the Mayor of Shelton, is at the hearing and wants to testify. I am going to ask him to do so briefly now.

Is there any other mayor or first selectman here who cares to join Michael and was not given the opportunity. I think we contacted everybody, but we could have erred and I just want to make sure that if there is somebody in that class that they would join Michael up here right now.

[No response.]

Senator **Weicker**. All right, fine.

Michael, it is a pleasure to have you and you may proceed.

STATEMENT OF MICHAEL PACOWTA, MAYOR, TOWN OF SHELTON, CT

Mr. **Pacowta**. I intend to address the issue as it pertains specifically to Shelton, but to the entire State of Connecticut because I am sure that the problems that Shelton is experiencing the other communities are experiencing as well.

The proposed pipeline route would cut through the city——

Senator **Weicker**. Michael, excuse me one minute. Could you identify the person with you?

Mr. **Keller**. Yes, Senator Weicker, I heard you issue an invitation for other mayors and first selectmen to join, and I am Ken Keller from Brookfield, First Selectman.

Senator **Weicker**. Good, Ken. If you would identify yourself then, for the record.

Mr. **Keller**. Kenneth Keller, First Selectman, Town of Brookfield.

Senator **Weicker**. Fine, nice to have you here.

All right, Michael, proceed.

Mr. **Pacowta**. Thank you.

The proposed pipeline route would cut through the City of Shelton scarring unspoiled farmland forests and parkland. The proposed line would run roughly in a straight line without any real attempt on the part of Iroquois to route around environmentally sensitive areas. Consequently, Shelton's valuable wetlands systems, forests, farmlands, parklands, wild-life habitats, residential areas and business properties would be subject to and impacted by an unnecessary and irreparable upheaval if the proposed pipeline is approved by the Federal Energy Regulatory Commission.

Serious questions exist for the need for increased gas on the scale involved in this project, and about whether or not this is the most cost effective way to meet such needs as may develop in the region for greater supplies of natural gas. There are several proposals to expand current pipeline systems to increase natural gas transportation capacity to the Northeast United States pending before the Federal Energy Regulatory Commission which are less costly and less environmentally damaging than the Iroquois proposal. Unlike Iroquois these proposals would carry less expensive domestic gas and would extend existing pipeline systems.

The federal government's energy regulation policy should be a policy governed by checks and balances in an effort to check the state's legitimate energy needs and to balance those needs against the state's responsibility to protect the environment for future generations. A constitutional balancing test would require the least harmful pipeline route for the environment and for the property owners in the City of Shelton and the State of Connecticut.

As the Mayor of the City of Shelton, I am in full agreement with and support the position of my constituency. The petitions in opposition to the pipeline submitted to the FERC on October 28, 1986 reflect the animosity of the residents of Shelton towards the internment of this gasoline. Serious consideration of potential alternatives and existent rights of way must be taken since there was no better way to mitigate environmental damage than to utilize land already set aside for transportation purposes. Ultimately, it defies logic, reason and common sense to build a pipeline only to discover later on that it was never needed to begin with.

The Iroquois Gas Transmission System does not give farmers any indication regarding the acreage they will lose during construction. Further, the long-term impact with the amount of soil erosion and subsequent sedimentation is not estimated. Many questions arise. For example, what uses can a farmer put this land to? What limits are there on this usage? What does the landlord need permission to use his or her land for? One great impact impinging on the farmer's rights will be that the right of way will be an avenue for crop destruction by vandals and recreation vehicles such as dirt bikes, terrain vehicles and four-wheel drive trucks. There was little doubt that the entering of this pipeline through Shelton farmland will destroy woodlands and inevitably kill those animals that inhabit these areas. Common knowledge dictates that birds and wild animals cannot be driven from their natural habitats and then expect them to return to live as they did prior to the invasion.

Further, since most of Western Connecticut is a rock formation and a great deal of blasting will have to be done, wells and homes will be destroyed and subsequently farmland will be rapidly depreciated in value. The consensus among farmers and property owners is that the pipeline should follow existent rights of way along railroads or highways. In December 1985, in a neighboring town, a gas explosion occurred which took lives and injured many. Our cities simply do not have the fire equipment required to take care of these types of explosions and fire companies are not trained to respond to gas explosions. The expense is overwhelming since one fire truck ranges anywhere from $200,000 to $400,000. Large numbers of streams and rivers, including the Housatonic, which is crossed not less than three times, and lakes, are in the path of the pipeline under one proposal. The DEP is concerned with the cross stirring up cancer-causing PCB's. A PCB is a polychlorinated biphenyl which means that there are two cancer-causing groups on one molecule. Construction across the bed of the Housatonic is likely to disturb PCB's now held in the bottom sediments of the river and have been a recognized problem for years. Now it is possible for PCB's to get into the drinking water, thus, the probability of significant alteration to the system is enormous.

The proposed route impacts Shelton wetlands at a minimum of 25 locations on 21 individual wetland units. This is the highest number of any community along the entire route, including New York. Seven of the affected wetlands are also significant enough to be classified for federal regulation. The proposed route traverses 11,050 lineal feet of wetlands, the highest amount of any community along the entire route, including New York. Several of the crossings are classified as border, which essentially indicates that a particular traverse may cross only a portion of the wetland rather than completely through it. Regardless, the 11,050 lineal feet of wetland traverses approximately out to an area of approximately 25.4 acres. That amount of wetland disturbance is roughly equivalent to four or five years of processing applications from any type of conventional proposal. The series of traverses would involve six or seven wetlands systems, systems being those areas of larger size and containing a variety of wetland types. As the amount of habitat diversity and size increase, so does the system's relative values and functions. Traverses, fills and excavations should be avoided in places where an entire wetlands system is involved.

Senator WEICKER. Mayor, if I could, I tried to do this as a courtesy to you, but I do have other witnesses.

Mr. PACOWTA. Okay.

Senator WEICKER. Your statement in its entirety is going to be put in the record, and I wonder if you could summarize it in some way.

Mr. PACOWTA. Sure. I can summarize that. In fact, I want to apologize for reading so fast. I was trying to jam it all in and, Senator, you are quite right, and I thank you for the opportunity to speak.

I will just conclude by reading the last couple of paragraphs.

I respectfully request that the FERC be sensitized not only to the invasive disruption of Shelton's natural resources, but to the deep impact and assault upon its quality of life which will follow the entrenchment of the proposed Iroquois pipeline. The comments delineated herein regarding the scope of the Commission staff's environmental statement reflect the City of Shelton's steadfast position that the effects of the proposed Iroquois pipeline would be deleterious to its health and that Iroquois has sorely exaggerated the potential gas market in Shelton and the State of Connecticut. Beyond the unestablished need for the Iroquois line is the emotional trauma and anxiety which has been felt by Shelton's residents as a result of the threat of the proposed pipeline intrusion. The people of the City of Shelton will not forget the adverse effects of the Iroquois pipeline procedure for many, many years to come.

Senator, I thank you very much.

Senator WEICKER. Thank you very much for your very valuable testimony.

Mr. PACOWTA. Could I just add also, Senator, for the record, we are steadfastly also against the fast tracking system for this proposal.

Senator WEICKER. Thank you.

STATEMENT OF KENNETH KELLER, FIRST SELECTMAN, BROOKFIELD, CT

Mr. KELLER. Thank you, Senator. I did not come here with a prepared statement because knowing your time constraints, I did not expect to have an opportunity to speak and I do thank you.

Very briefly—and I will be brief since I have nothing prepared—Brookfield is unusually fortunate. We have two proposed routes for the pipeline through our town. Brookfield next year will be celebrating its 200th anniversary and, as you know, it is a very pretty town and we are trying very hard in the face of constant growth to keep some of the New England atmosphere. It is difficult.

There are several things that disturb us. Particularly in Brookfield what very much disturbed me is the method of determining a route for this. I have gotten the Vice President of Northeast Utilities, a Vice President of Southern New England Gas and other high ranking personnel from those organizations to admit that in determining that route it was done from 1984 maps and a fly-over. At no time did they ever walk or drive or take a land-level view. They never approached anyone in my town—and as far as I can determine in my neighboring towns, speaking with my colleagues in New Milford, Newtown, Sherman—we were never approached for any information as to what the effect might be in Brookfield, and the effect would be devastating. It would end up with a 70 foot wide, in effect a fire break, running right through town. There is no way to disguise that. It will be there. That disturbs me, their method of determining a route.

I challenged on this in my scoping comments, and they have seen fit to twice send down engineers from Toronto, and I have to be very careful because I am never going to put myself in a position of negotiating with these people when they treat us so cavalierly, trying to convince me that Brookfield would benefit from this pipeline.

I am also concerned, Senator, that the FERC have given me to understand in writing and in telephone calls, my questions to them for evidentiary hearings in the state, that there will be none. I think I will document that to your office.

Senator WEICKER. The Chair would like certainly to have that kind of documentation, because I can assure you—certain things I can assure you on in the process of trying to establish fair, open hearings. There will be environmental hearings by FERC.

Mr. KELLER. Thank you, Senator, that really improves our outlook in this thing.

And one last thing, Senator, this has been mentioned time and time again, and I am not qualified to comment on the need, I am qualified to comment on the routing. One thing that concerns me: Is the need so overriding that the FERC is still considering the expedited crosses and that really can't be. If the economic, aesthetic and environmental effect on our towns, on our state is—and I don't want to exaggerate, but it is devastating.

Thank you very much for allowing me to be heard.

Senator WEICKER. Thank you both very much. It is good to have you here.

Our next panel is Mr. Robert Moeller of the Housatonic Valley Association and Mr. Sergei Givotovsky of the Northern Valley Association.

STATEMENT OF ROBERT MOELLER, HOUSATONIC VALLEY ASSOCIATION, INC.

Mr. MOELLER. I am Robert Moeller, a consultant with the Housatonic Valley Association and we are most grateful for this opportunity.

Senator WEICKER. Can you pull that microphone closer to you so that everybody in the audience can hear? Pull it right up to you.

Mr. MOELLER. All right.

The Housatonic Valley Association is a not-for-profit citizens conservation organization, with members in each of the towns affected by the Iroquois proposal. HVA has been in existence for more than 40 years. Has been in the wise use of the natural resources of the Housatonic River Valley.

HVA has taken a public position opposing the Iroquois proposal for a number of reasons: One, that no need for the project has been demonstrated; two, that the proposed route and the various alternative routes are environmentally unsound; three, that there are alternative transmission systems that appear to have less adverse environmental impacts; four, that the Federal Energy Regulatory Commission has under active consideration a number of these proposals; and, five, that the abbreviated Order 436 and its OEC approval process is not adequate for this proposal. This opposition is shared and concurred in by a sister organization in New York State, the GASP coalition, representing many of our New York neighbors in Dutchess County, Columbia County and other areas of New York State.

I will try to summarize the written.

Our concerns regarding the environment are many and varied. I will give just a couple of examples, the first one being agricultural land: Prime farmland has been identified as one of our most important natural resources. On the original proposed route, the Iroquois pipeline would traverse more than eight miles of prime farmland. If alternative three were used, it would be more than nine miles that would be traversed. On the newly preferred group, Alternative 7, 7A, which is a shorter route in the State of Connecticut, longer in portions of neighboring New York, the construction would involve about four-and-a-half miles of prime farmland.

Numerous parcels of protected land, lands protected by the Connecticut Farmland Preservation Program, by local land trusts, by the National Park Service and by numerous local land trusts would be traversed by the Iroquois proposal, regardless of which of the alternative routes was chosen.

Inland wetlands has been mentioned briefly by previous witnesses. These portions of our environment that provide natural sedimentation traps, nutrient and pollution filtration systems, flood control, ground water recharge areas, many of these would be impacted. For example, on the newly preferred route: In one area along the Monroe-Shelton town line, the proposed pipeline would enter a wetland stream system and not emerge until 1.75 miles further on. In another area in Brookfield, the pipeline would remain in a wetland system for more than a mile. There are many, many other areas of concern. They are listed in our written testimony.

In Connecticut there has been a long period of beginning to get a handle on our environment. There are a number of things we need to think about in terms of what has happened with the people of Connecticut. If you think about the Farmland Preservation Program, which is a state program to preserve important farmland for the future. Connecticut has more local trusts than any other state in the nation. These land trusts are committed to preserving meaningful parcels of our landscape. Just this year Connecticut strengthened its inland wetland legislation to insure better protection for the wetlands of our state. If you look at other parts of our legislative and activity of the Connecticut coastal management, soil erosion, sediment control; you look at the Housatonic River Management Plan; the Shepaug-Bantam River Management Plan, both of them in draft form at this point. If you look at the successful efforts of the Lake Waramaug Task Force, there are many examples of Connecticut looking toward the future and taking care of our environment.

We believe that this growing land ethic within the citizenry of Connecticut will be severely damaged if Iroquois is allowed to continue onward under Order 436 that allows for no assessment of need, no assessment of alternative systems, and basically eliminates to a large extent citizen involvement. There are questions of the need for the gas, questions for alternative systems that have been addressed by others.

In conclusion, HVA is strongly opposed to the Iroquois proposal, first, because of its request for the use of Order 436 and the optional expedited certification procedures.

Thank you.

Senator WEICKER. Thank you very much, Mr. Moeller.

[The prepared statement of Mr. Moeller follows:]

Testimony before

Members of the United States Senate

Energy Committee,

Subcommittee on Energy

Regulation and Conservation

Presented by the

Housatonic Valley Association, Inc.
P. O. Box 28
Cornwall Bridge, CT 06754

(203)672-6678
(203)734-3344

July 20, 1987

I. INTRODUCTION

The Housatonic Valley Association (HVA) welcomes this opportunity to address members of the United States Senate Energy Committee's subcommittee on Energy Regulation and Conservation regarding the Iroquois Gas Transmission System's proposed natural gas pipeline.

HVA is a not-for-profit citizens conservation organization with members in each of the towns within the State of Connecticut affected by the Iroquois proposal. For more than 40 years, HVA has been a leader in encouraging the wise use of natural resources of the Housatonic River Valley in Connecticut, representing citizens and the environment of the entire Housatonic River watershed.

HVA has taken a public position opposing the Iroquois proposal for several reasons: 1) no need for the project has been demonstrated; 2) the proposed route and the various alternative routes are environmentally unsound; 3) alternative transmission systems appear to have less adverse environmental impacts; 4) the Federal Energy Regulatory Commission (FERC) has under active consideration a number of proposals which would transport Canadian gas to the Northeast, utilizing mostly existing pipelines and their attendant rights of way, obviating the need for a totally new pipeline with its adverse impacts; additionally on July 15 FERC issued an open season for new applications to serve the needs of the northeast; 5) the abbreviated Order 436, Optional Expedited Certification approval process which Iroquois seeks provides no comparison with competing proposals to serve the same market area, allows for no evaluation of need for the project, and may limit citizen participation to the EIS process rather than the broader issues normally considered in a traditional Section 7(c) proceeding.

II. MAJOR CONCERNS

A. Natural Environment

HVA believes that all of the identified routes in the Iroquois proposal would have significant adverse impacts on the environment. At least the following specific areas of concern require detailed analysis and must be mitigated before this proposal is certified.

Agricultural land:

The Iroquois proposal would traverse many miles of soils identified by the USDA Soil Conservation Service in Connecticut as prime farmland. "The U. S. Department of Agriculture has issued the following policy statement on the significance of Prime Farmland. 'Loss of land well suited to the production of food, forage, and fiber is a matter of growing concern to the Nation. Major consideration must be given to the prime farmland and long-range need to retain the productive capability and environmental quality of American agriculture.` " (Important Farmlands of New Haven County, Connecticut, USDA, Soil Conservation Service, 1981.)

On the original proposed route the pipeline would traverse more than eight miles of prime farmland. More than nine miles of prime farmland would be impacted by Alternative 3. If the new "preferred route", Alternative 7/7A, a shorter route within Connecticut, were to be selected for construction it would involve about 4.5 miles of these valuable soils.

Widespread concern exists regarding soil clodding, compaction and mixing, about drainage systems, and other restrictions and limitations on future agricultural use. Farmers experienced with pipelines claim soil productivity remains effected even after eight years.

Protected lands:

Numerous parcels of protected land are threatened by the construction of the Iroquois pipeline. These lands include farms protected by the Connecticut Farmland Preservation program, preserves of local land trusts, of the National Park Service for the Appalachian Trail, of the Nature Conservancy, and of various municipalities.

The trustees of these various lands often have no right to grant permission for a proposed pipeline construction. In many cases the land's use is governed by development restrictions that remain in perpetuity.

Inland Wetlands:

The Inland-wetlands of Connecticut are of vital importance to the ecological well-being of the state. They provide natural sedimentation traps, nutrient and pollution filtration, flood control and ground-water recharge areas, as well as critical wildlife and plant habitats.

Through its proposal Iroquois intends to construct its pipeline through many miles of these wetlands. The original proposed route would find the pipeline traversing some 8.28 miles of wetlands, about 13% of that routing. The new preferred route, Alternative 7/7A, would impact 8.75 miles, or about 18% of that alignment. An example of this apparent disregard for Connecticut wetlands can be seen at the Monroe-Shelton town line where the pipeline would enter a wetland system and emerge from it 1.75 miles further on. In another area of the preferred route, in Brookfield, the pipeline would traverse a wetland system for more than a mile.

Other areas of concern:

Forests
Groundwater resources
Blasting
River/stream crossings
Wild and Scenic rivers
Erosion/sediment control
Access roads
ROW/off road vehicles
Residential/commercial developments
Hazardous waste sites
Aesthetics
Radon gas release
Steep slopes
Town roads/country roads
Rare and endangered species
Forest fragmentation
Wetland revegetation
White-tailed deer
Archaeological resources
Historic sites/communities
Long Island Sound crossing
Oyster/clam beds
Waste disposal sites
The impact on the human environment
Human health and safety
The impact on quality of life
The environment as a whole

All of the above concerns are detailed in the COMMENTS BY THE HOUSATONIC VALLEY ASSOCIATION ON THE SCOPE OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, a copy of which is attached. The DEIS is currently being prepared by the FERC staff.

B. The Human Environment:

Beyond the fact that this proposal, if constructed would disrupt the lives of many Connecticut residents, it poses some devastating long range impacts to processes and values that are a part of the human environment.

The people of Connecticut have expended considerable money, time and energy providing for a quality environment for future residents.

Witness the Connecticut State Statutes regarding Preservation of Agricultural Lands, which established a program of purchasing development rights on important farmland to assure that at least some of our best farmland will remain available in the future. On the original proposed route, Iroquois would traverse three farms that are part of that program.

Connecticut has more active local land trusts than any other state. These trusts are committed to preserving meaningful parcels of land for future generations. Municipalities have set aside land for parks and conservation purposes and in many cases have expressly forbidden development of any kind. Yet Iroquois proposes to develop a pipeline through many such parcels.

In 1987, Connecticut passed legislation to strengthen the protection provided to its inland-wetlands and water courses. Citizens have given up some of their individual development rights in an effort to assure the continued vital contribution of these wetlands to the health of the state.

Look closely at Connecticut Coastal Management and Soil Erosion and Sediment Control. Witness the Housatonic River Management Plan and Shepaug-Bantam River Board Management Plan, both in draft form at this date. Examine the successful efforts of the Lake Waramaug Task Force.

Many regulations restrict the use of land, protecting and enhancing the public good. When public need and public good are clearly justified, Connecticut citizens respond, as the above examples clearly demonstrate.

The Iroquois proposal has not been clearly shown to be in the public need and public good. If Connecticut land is taken under the right of eminent domain the public good and need must be clearly shown. Taking land that has painstakingly been set aside for other proven public needs, without clear demonstration of need will have long term ramifications. Will Connecticut citizens continue working diligently, knowing that the fruits of their efforts may be destroyed without adequate opportunities for citizen involvement and without clear demonstration of need?

We believe that the growing land ethic within the citizenry of Connecticut will be severely damaged as a result of this flagrant taking of land based on the assumptions provided by Order 436 and its Optional Expedited Certification (OEC) procedures. The risk of adding to citizen distrust of government is also too great to allow this to happen.

C. Need for the Gas

The question of need must be carefully evaluated regarding the Iroquois application. Studies produced by Iroquois have been criticized and their merit questioned. The Rudden Report, the QED Report, the CRS reports, and reports provided by Tennessee Gas Pipeline conflict with one another. Truly the issue of need must be addressed in a full evidentiary hearing by FERC. We believe that enough rebuttal has been produced to have eliminated Iroquois from consideration under the OEC procedures.

Reportedly the FERC staff determined that there is a conflict between the assumption of need provided by Order 436 and the requirements of need analysis provded by NEPA and the Environmental Impact Study already required for Iroquois.

D. Alternative Delivery Systems

The question of alternative delivery systems also needs to be addressed comprehensively. One overarching consideration should inform FERC's evaluation of alternative transportation systems -- the extent to which a system uses already existing corridors or rights of way (ROWs). This is because a principal adverse impact of any gas pipeline is the linear destruction to ecosystems and habitats, as well as the visual blight of the barren swathe through the landscape. The use of common corridors reduces these impacts substantially by placing new construction in corridors already impacted ecologically and aesthetically.

According to FERC's regulations, "In locating proposed facilities, consideration should be given to the utilization, enlargement or extension of existing rights of way belonging to either applicant or others such as pipelines, electric power lines, highways, and railroads." 18 C.F.R Sec. 2.69(a)(1)(i).

The FERC has before it, both as formal applications or informal proposals, a series of projects that would supply Canadian gas to the Northeast and are therefore reasonable and viable alternatives to the Iroquois system. Many of these proposals use existing ROWs by expanding existing systems, including those of the:

Tennesee Gas Pipeline
Columbia-Erie,
Docket Nos. CP86-329-001 and CP86-330-001
Canadian Gateway Pipeline System,
Docket No. CP86-513-000
National Fuel Gas Supply Corp.,
Docket No. CP86-677-000
Northern Border Pipeline Co.,
Docket Nos. CP84-407-000, 001, 002
Northern Natural Gas Pipeline Co./Natural Gas Pipeline Co.
Granite State Gas Transmission, Inc.,
Docket No. CP87-40-000
Boundary Gas, Inc. et al.,
Docket Nos. CP81-107-000, et al.

Other applications may soon be added to this list as companies respond to the FERC request, July 15, 1987, that projects proposing to serve the gas needs of the northeast be submitted by November 13, 1987.

The full comparative review necessary to provide assurance that the best system is constructed is circumvented by the Order 436 procedures.

E. Optional Expedited Certificate

Much of HVA's concern regarding the Iroquois proposal revolves around the use of Order 436 and the Optional Expedited Certification (OEC) procedures. Although in our view these procedures hold merit in certain situations, the sheer size and potential impact of the Iroquois application requires more comprehensive evaluation than OEC requires.

We strongly urge that the Iroquois application not be processed under Order 436. We strongly urge the use of conventional procedures that allow for adequate citizen participation and provide for adequate demonstration of the real need for the gas and the best delivery system. This full and complete process must be accomplished before any use of eminent domain and the taking of private lands.

III. Conclusion

In conclusion, HVA is strongly opposed to the use of Order 436 and its OEC procedures in the Iroquois application process. We believe that this process would allow for unnecessary environmental degradation. Long term damage would occur to the citizens of Connecticut through the unproven need to use eminent domain for the taking of carefully preserved lands and running roughshod over the statutes and regulations governing land use for all in the state.

It is mandatory that an application of this magnitude, that has engendered such overwhelming citizen opposition, and that so severely threatens the natural and human environment, be carefully and exhaustively scrutinized to the benefit of all concerned.

We thank you for this opportunity to present our concerns regarding the Iroquois Gas Transmission System application, and for your holding this hearing in Connecticut.

Respectfully submitted,

STATEMENT OF SERGEI GIVOTOVSKY, NORTHERN VALLEY ENVIRONMENTAL COUNCIL

Mr. GIVOTOVSKY. Senator, thank you for allowing us to testify. Northern Valley Environmental council is a Northwest Connecticut environmental organization. We have been deeply involved in the various legal actions and activities surrounding the Iroquois proposal.

Although our comments will reflect our Northwest Connecticut orientation, we believe that they have much broader applications. Northern Valley Association has no objection to the use of natural gas. It is a proven and relatively clean source of energy. We also welcome responsible and orderly competition among its providers if and when need has been established, to the degree and in the manner required by law.

As has been ably noted here today, the source and means of delivering any needed gas must, be similarly established. However, we object strenuously to design and construction of any gas pipeline, Iroquois' or anyone else's, without full and respectful regard for the environment. Full regard for the environment can be enforced only by a thorough fact-finding process applying appropriate criteria. Moreover, that process must protect the rights of all affected communities and individuals to participate in the decision-making.

We appreciate this opportunity to tell the Committee our views and would like to take the time allotted us to comment on some of the more important criteria that we believe should govern the siting of any gas pipeline found by FERC to be needed.

First, existing rights-of-way should be used to the maximum extent possible, as is required by FERC regulations. Rights-of-way to be considered include both operational and non-operational railroad rights-of-way, highway rights-of-way, pipeline rights-of-way and also electrical rights-of-way.

To the extent that construction directly on an existing right-of-way is not technically feasible, construction adjacent to it often is and would similarly confine disruption to environments already impacted.

Second, public parks and similarly protected lands should be similarly avoided. Protected lands include not just national and state parklands, but also conservancies and sanctuaries. Also to be avoided are land areas under Connecticut's program for the preservation of agricultural lands. Those are lands for which the state purchases development rights in order to perpetuate its use for farming purposes, as has just been noted.

It is worth noting at this point that the government and private citizens of Connecticut have done an outstanding job to date of preserving for the future Connecticut's natural beauty and resources. These efforts must be respected in any FERC action.

Third, purely aesthetic values must also be respected. The destruction or impairment of woodlands and irreplaceable natural areas, which are enjoyed by entire communities and visitors from throughout the world must be avoided where possible.

Fourth, the use of existing gas transmission facilities must be maximized. With respect to the Iroquois proposal, both Algonquin and Tennessee operate facilities whose use would diminish or entirely avoid the need for the so-called Iroquois spur that would run west to east in New York and Connecticut.

Last, wetlands and river crossings should also be avoided where possible. Certain wetlands in Connecticut are precariously perched on impermeable geologic formations that could be ruptured by any right-of-way development requiring blasting. Any such rupture could drain important wetlands with irreversible consequences for wetland wildlife.

Demonstrably, Iroquois' original preferred route, which is still an alternative and which falls within Northern Valley's geographic area of concern, failed to apply the criteria I have just discussed.

Virtually no use was made in Connecticut of existing and available rights of way. Protected land was crossed indiscriminately. As only a few examples, in the town of Sharon, three or four farms protected under Connecticut's preservation of agricultural lands program were crossed. The original route also encroached on scenic-like Waramaug, which has only recently been rescued from environmental damage after the expenditure of vast amounts of money by local and federal organizations.

Similarly, the pipeline route-crossed land included in the Steep Rock reservation.

Aesthetic values represented by extensive woodlands, often unprotected lands, were similarly disregarded.

Available capacity on existing gas transmission lines owned by Tennessee Gas and Algonquin were not, and still are not proposed for use, apparently because certain pipelines have been unwilling to transport gas for other pipelines and consumers. That recalcitrance by existing pipelines warrants, in our view, further inquiry by this Committee.

Local residents Hank Kuhnhart and Peter Duncan have prepared a videotape of a portion of the original proposed route. It shows far better than any verbal description that the original Iroquois proposed route totally disregards virtually all of the important decision-making criteria that I have discussed. We have filed a copy of that tape as part of the record of this hearing, and copies can be made available to interested parties.

Where then are we today? Despite numerous and long-standing petitions to set the Iroquois application for an evidentiary hearing, FERC has not yet revealed what procedures will be followed in evaluating the Iroquois proposal. Whatever these may ultimately be, they must insure that the full extent of environmental impact is revealed and understood, and that the certificating process applies the criteria that I have reviewed here today.

The Northern Valley Environmental Council is confident that areas of natural beauty and resources such as shown on the tape that we have submitted, will not be desecrated by pipeline construction so long as we are allowed to learn the facts and apply sound criteria in evaluating Iroquois or any other pipeline proposal. We urge the Committee to ensure that FERC follows this type of informed decision making and prevents needless destruction of natural beauty and resources wherever they may be located.

On behalf of Northern Valley Environmental Council and all citizens of Connecticut concerned with our state's environment, we thank the Committee and you, Senator, for this opportunity to be heard. We further thank the Committee for their interest in preserving Connecticut's natural splendor for future generations.

Thank you again.

Senator **Weicker**. Thank you both for your very valuable testimony. I know that both of your association's have been enormously helpful to my staff in keeping us apprised as to what the attitudes are in the constituencies that you represent. I thank you.

The next panel consists of Mr. Robert Reid of the Iroquois Gas Transmission System and Mr. Joseph Ramsey of the Tennessee Gas Transportation Company. Mr. Ramsey will be accompanied by Mr. David Ellis of the Tennessee Gas Transportation Company and I believe Mr. Reid also has two gentlemen that he would like to have sit here with him.

Mr. Reid, why don't you proceed with your presentation.

STATEMENT OF ROBERT REID, PRESIDENT, IROQUOIS GAS TRANSMISSION SYSTEM; ACCOMPANIED BY JIM ROONEY, PRESIDENT OF ALBERTA NORTHEAST GAS, AND VICE PRESIDENT, J. McCOSKEY & ASSOCIATES; AND DERRICK KENWOOD, VICE PRESIDENT, TRANS CANADA PIPELINES

Mr. **Reid**. Thank you sir. Mr. Chairman, my name is Bob Reid. I am President of Iroquois Gas Transmission System, the partnership which proposes to construct the pipeline facilities which are the subject of this hearing.

Contrary to some earlier comments this morning, our partnership has not changed; the partners are clearly set forth on page 4 of our application before FERC which was filed in May of 1986, some 14 months ago.

In view of the limited time available for our presentation, I would like to make three brief points. Firstly, the Iroquois proposal represents the product of nearly seven years of effort to resolve the pipeline transportation bottleneck which has plagued the growing Northeast gas market. The first five years of that effort were spent in litigation at the FERC, with the Iroquois sponsors attempting in earnest to work with the interstate pipeline partners to develop new access to the market via the Niagara Interstate pipeline system, or "NIPS" as it became known. That effort failed, and NIPS was abandoned, in large part because of the deterioration of markets served by the interstate pipelines outside of the areas which Iroquois will serve. When NIPS failed, the distribution companies whose markets were growing determined to develop a pipeline system specifically tailored to those markets, and the result was Iroquois.

Second, despite the popular complaint that Iroquois is seeking fast-track approval from FERC in order to avoid scrutiny of the need for a pipeline, nothing could be further from the truth. The Iroquois proposal and the companion gas supply project, Alberta Northeast Gas, Limited, must transit regulatory proceedings before the Alberta Energy Resources Conservation Board, the Canadian National Energy Board, the New York Public Service Commission, the Connecticut DPUC and possibly the Connecticut Siting Council, the Economic Regulatory Administration, the Corps of Engineers, and the Federal Energy Regulatory Commission, proceedings which will take over two years and cost more than $5 million. There will be no conceivable opportunity for Iroquois or ANE to duck scrutiny, nor is there any desire on our part to do so.

I recognize, of course, that the concern here today is whether there is evidence of a need for the Iroquois pipeline and ANE gas supply in the State of Connecticut. From Iroquois standpoint, we have always accepted the proposition long endorsed by both FERC and the federal courts, that the entities in the best position to determine the need for a gas supply are the public utilities who have a statutory obligation to serve their gas consumers. All three major Connecticut gas utilities demonstrated their determinations by contracting for both Iroquois capacity and the ANE gas supply. As to whether their determinations and the similar determinations of eight other gas distribution companies in New York and New Jersey are correct, our position has always been that that decision should be made by the state agencies which regulate the utilities as well as by ERA, the Federal agency which controls Canadian gas imports.

My final point this morning relates to the environmental and routing aspects of the Iroquois proposal. There are presently over 500 miles of natural gas transmission lines in service in Connecticut, and these have been operating in a safe, efficient and environmentally benign manner for over 30 years. The route selection process for Iroquois has been the most thorough of any gas transmission line constructed in this state to date, including extensive socio-economic and environmental considerations. A recent designation of a preferred route reroutes the line to the maximum extent possible along existing rights-of-way and allows the inclusion of a new customer, Central Hudson, in Poughkeepsie, New York.

I am still very concerned about the level of landowner objections, and you have my personal commitment that we are continuing to work daily with landowners, local officials and state environmental agencies to address these objections.

The plain fact, of course, is that no major energy facility can be constructed without some temporary, and I underline the word temporary disruption. On that important point, we would note that natural gas pipelines are the most environmentally benign of all major energy facilities, and that natural gas is the most environmentally acceptable of all fuels; and that it is long past time for Connecticut and the northeast to decrease its high dependence on imported oil, a point which is reflected in the official energy plan of all three states Iroquois will serve. Accordingly, the benefit to the public at large from the flexibility, reliability and competition which Iroquois will bring to Connecticut energy consumers far outweighs the relatively few burdens.

There has, of course, been much talk over the last year about "alternatives" to Iroquois. I suspect before this hearing is over, one or more alternatives will be unveiled. Iroquois welcomes the unveiling of alternatives because we firmly believe that when scrutiny is placed upon them, equal to that placed on Iroquois, the long and careful evolution of the Iroquois proposal will be apparent.

Put another way, we have no hesitation now, and have had none in the past, to letting Iroquois face head on a genuine proposal to provide a similar service. What we do object to are proposals which have life only in the press and which are advanced only to thwart the review of Iroquois.

Hopefully the procedures announced by FERC at its July 15 meeting will put a stop once and for all to such conduct by requiring that any party proposing to serve the northeast market file a complete application at the FERC just as Iroquois has done.

Mr. Chairman, I have with me today Mr. Jim Rooney, president of Alberta Northeast Gas, and executive vice president of J. McCoskey and Associates, one of our Iroquois partners and Mr. Derrick Kenwood, vice president of Trans-Canada Pipelines, another of our partners. We are here to assist you in your deliberations in any way we can. We would be pleased to respond to any questions that you may have and offer any appropriate verifications as the day progresses. Thank you for this opportunity.

Senator **WEICKER**. Thank you, Mr. Reid. I am going to ask questions of you first and then move to the other panelists. I do not think you are both here on the same mission, I will put it that way, so I think I had better handle each subject matter separately.

Let me ask you this question: Who encouraged this project? There had to be a starting point somewhere. Was this something that was encouraged by the state or the DEC or did it emanate strictly from utilities within the state?

You say there has been seven years of effort devoted to this project. Has there been communication with the state on the matter of need? If I were an investor and I were starting something, I would prefer before I spent all my money and all my time, I would certainly like to find out whether or not I was going to be welcomed in the state.

What I would like to find out is, was there encouragement and has this encouragement in the light of events of the past years maybe faded into the background, or was it strictly a matter of being approached by the three entities, Connecticut Natural Gas and Northeast and Southern Connecticut? Who encouraged you in your efforts?

Mr. **REID**. As I indicated in my comments, Iroquois was born out of the failure or collapse of earlier projects, but all of the projects have been based on the need for increased quantities of natural gas, to supply increased quantities of natural gas into the United States Northeast market.

If you look at the statistics, Connecticut is still heavily dependent on imported oil.

Senator **WEICKER**. We all know that and we all agree that that is a disastrous situation.

Mr. **REID**. The natural gas, on the other hand, today's supply is about 17 percent of the primary energy market. I was surprised to learn that only 23 percent of Connecticut homes are heated by natural gas, versus a national average of some 55 percent. The market penetration in this part of the country is nowhere near saturation. Natural gas is a preferred fuel; it can be competitively priced and it can significantly reduce air pollution and other environmental concerns that have plagued the northeast. As well, it brings an alternative supply, a fresh supply, if you will, to this part of the country as an alternative to the traditional suppliers that you will be hearing from in a moment.

I guess you could look upon the Iroquois system as effectively jump-starting a market that has great promise and potential.

Senator **Weicker**. In the matter of need, did you have any discussion with either the economic development units of state government or was there any official encouragement or any official statement of need that precipitated your entry into the state?

Mr. **Rooney**. Senator, maybe I can take a crack at that. Since 1979 I have led an effort on the part of the regional northeast utilities to find additional gas supply. Our efforts in their initial phase took the form of a boundary gas project which was a project to bring 185 million cubic feet a day of gas from Canada into the market. We organized ourselves as LDC's. We went to our traditional pipeline suppliers and in fact Tennessee Gas Transmission to see if they would be willing to transport the gas in the boundary gas project. That project was very much encouraged by regional energy and political leaders. In fact, the Massachusetts State Energy Plan, the New Jersey State Energy Plan, the New York State Energy Plan and I believe a series of pronouncements by the regional DPU body, New England Public Utility Commission encouraged the introduction of these additional gas supplies. The boundary project, as I said, was designed to be transported on the Tennessee system. Unfortunately, that proposal over time was whittled down from the original 185 million cubic feet a day to a project of 92 million a day, only 40 million of which began flowing in 1984. I am happy to say the other 50 million will apparently begin flowing this November.

What happened, as Mr. Reid alluded to, was that the proposals to serve Northeast markets by their traditional interstate pipelines became enmeshed in the regulatory morass of the FERC, known as the NIPS proceeding. The failure of those proceedings to move along was essentially because the US interstate pipelines saw an erosion of their market. Some of the things that the fellow from the Congressional research service alluded to this morning factored into the inability of the interstates to move forward with their proposals to build pipeline capacity. So we took, as distribution companies, a step we had not contemplated taking back in 1979, and that was joining forces with our major supplier, Trans-Canada to introduce additional gas service in the form of a new transmission system, Iroquois Transmission, the break that bottleneck and get additional gas energy into that market. You will hear from our colleagues at Tennessee that they view the market as much more constrained in terms of its potential than we do, and I think the point that we would like to simply make is, that if we are wrong, what will be the result of that.

The result would be what is happened in California, I suspect, Senator, which is an excess of pipeline capacity. Prices have gone down and the lowest gas prices in the United States now are in California. I have heard representatives of Texas Eastern pipeline, which owns Algonquin transmission, the other major server of Connecticut, argue before Canadian producers that one of the things they want to avoid in opposing Iroquois, is that very competitive environment coming about in the Northeast. We are not afraid of that competition. We think this market can grow, as Mr. Reid said and we are prepared to risk our money. I am personally investing in this pipeline, very different from a lot of other people in this industry, and I believe in this.

Senator Weicker. I have to respond. If you are wrong, the price of gas may come down, but the State, it seems to me, has another problem on its hands, which is the environmental aspect and the damage that has been caused in the respect.

Mr. Rooney. I agree, Senator, and that is why the 6 investors have never proposed short-circuiting in any way the environmental review process. The expedited proceedings that we have talked to has never talked about a truncation of the environmental review process, to address those very concerns.

Senator Weicker. You made a remark, which I might add and I am delighted that Tennessee is here, that we all want to know exactly what it is that they propose and we do not want to be on the short end of the monopoly, or a two-man monopoly. You made reference to press proposals as compared to real proposals before FERC. Would you like to expand on that? I do not think that the state wants to be left with a bunch of press clippings, either and then be at the mercy of two companies.

Mr. Reid. That is a valid point, Senator. Our application which was filed before the FERC in May of 1986 is probably one of the most complete applications that has been filed for the construction of the interstate pipeline system. We are, at this point, I believe the only true alternative that has been filed in that detail. At the FERC meeting last Wednesday, all proposals to the US northeast were dismissed except two. Those two were Iroquois and the Erie proposal. It is my understanding that the Erie proposal is still deficient in some way in terms of having a complete application, but there are still two live proposals before FERC for consideration.

Mr. Rooney. Senator, on that point I think that the record might benefit from inclusion of a letter sent by a Tennessee Gas Transmission's counsel to certain parties that were opposing our application before the New York's Public Service Commission, and that letter states that Tennessee felt its resources right now were best spent making its position known to groups that were opposing Iroquois rather than at this point, fully participating in the New York Article 7 proceedings and appearing there with their proposal. I think that letter, which was submitted for the New York record, you might find very interesting on this very point of both newspaper alternatives to Iroquois.

Senator Weicker. I gather then your definition of need was arrived at in a regional sense, not as a matter of consultation with anyone here in the state of Connecticut.

Mr. Rooney. The consultation was a consultation between the customers of Iroquois, the local distribution companies and the Iroquois pipeline system.

Senator Weicker. In other words, the potential customers such as the three Connecticut utilities that are here.

Mr. Rooney. That is correct. We surveyed a number of the people who would have been interested in importing Canadian natural gas, Senator. We put our proposal before them. That process was culminated in signed reservations, 20-year reservations on the Iroquois system.

Then, in turn, the local distribution companies have to justify the prudence of their decision to their state regulatory bodies, a process which has been going on in Connecticut, as was referenced this morning. Unfortunately, I am afraid some of our opponents do not like the end result of that process, which has been a draft report supportive of the Iroquois pipeline system and supportive of the Connecticut companies' need for additional gas. Unfortunately, they just do not like the answer. The process is going forward as it was designed to, and I think the Connecticut companies coming up here after us can explain that in great detail. The FERC has laid down a series of procedures which we are following which states that if need can be demonstrated through the existence of signed reservations—and there was a lot of discussion at the FERC last Wednesday, I sat through that five hours of discussion—and the FERC seems to me, and by the way, this was upheld by the Circuit Court of Appeals in the District of Columbia, recently, they see the use of these optional procedures as consistent with a finding of need. They are putting the onus, as Commissioner Stalon said, back where it belongs, at the state commission, who are the proper bodies—as you yourself so eloquently said, not bureaucrats in Washington, but the people on the firing line back here—to determine need. That is a process that is going on in Connecticut, in New York through the Article 7 proceedings, and goes on in New Jersey, the states where this gas is going to be sold.

Senator **Weicker**. Have you been somewhat surprised at the lukewarm response that has been issued on behalf of the state government relative to the pipeline proposal?

Mr. **Rooney**. I think we were disappointed in the reaction. I think I would be disingenuous not to say that. We have been similarly pleased with the response that we have had in other states, which ranged from neutrality, I think at the political level in New York, to outright support in New Jersey. Now, obviously there is no pipeline construction in New Jersey, so they are keen to see the gas supply increase. "Not in my backyard" syndrome, as they say.

Senator **Weicker**. I want you to stay here. Why don't we move next to Mr. Joseph Ramsey of the Tennessee Gas Transmission Company, with his testimony and for questions.

Mr. Ramsey.

STATEMENT OF JOSEPH E. RAMSEY, VICE PRESIDENT, TENNESSEE GAS TRANSMISSION CO., ACCOMPANIED BY DAVID ELLIS

Mr. **Ramsey**. Thank you, Senator Weicker. I have with me today Dave Ellis, also a vice president of Tennessee Gas. We appreciate the opportunity to participate in today's hearing.

Our company is a federally regulated interstate pipeline company which brings natural gas from the southwestern United States, offshore Gulf of Mexico and Canada to gas consumers in the northeast and New England. Our pipeline system delivers about 40 percent of the natural gas consumed in Connecticut and we provide gas service to 10 of the 11 Iroquois customer companies. Tennessee believes that the Northeast, and especially New England, is one of the best markets for natural gas in the United States. Gas consumption in this area will continue to grow in the future, while in many other regions of the country it continues to decline.

Furthermore, Tennessee believes that fair and open competition benefits the Northeastern gas market. In this regard, we were the first major pipeline in the Northeast to provide competitive, open access transportation on our system. As a result, our customers can now purchase gas from us or contract with us for the transportation of gas purchased from other suppliers here in the United States or in Canada. In addition, Tennessee is committed to the continued expansion of its pipeline system to meet the needs of its northeastern customers. Our proposals are not made solely to make headlines in the press.

In the past six years alone, we have spent $185 million on Northeast expansions. We have increased our pipeline capacity into New England by 32 percent, and into Connecticut by 30 percent. We have other planned major expansions already on file with and awaiting approval from the federal regulators. These would involve additional expenditures of more than $130 million on top of that which has already been spent.

For more than a year, Tennessee has tried to explore alternatives to the Iroquois project with our Northeast customers. We have met numerous times to discuss more economical means of serving identifiable new markets. Recently, we made a firm proposal to expand our pipeline to transport Canadian gas to the three major Connecticut customers. This proposal, according to our figures, would save Connecticut gas consumers over $100 million in comparison to similar service by the Iroquois project.

To date, we have seen little or no interest expressed by these customers. This offer remains open; however, it is a firm proposal, and we will file it as soon as we can work out contractual agreements with these customers.

Even though we are optimistic regarding the gas market in this region and even though we have supported our customers' efforts to diversify their supply sources with Canadian gas in the past, we cannot support the effort to build this major new pipeline for the following reasons.

First, our market information strongly suggests that the market served by the Iroquois customers cannot economically utilize an increase in annual capacity of the magnitude proposed by Iroquois. For example, in Connecticut the increases in annual capacity available to the three major Connecticut companies would be in the 40 to 45 percent range, all at one time.

Secondly, most of the incremental markets proposed to be served by Iroquois use the cheapest type of fuel oil as their alternate energy, and even though the Iroquois gas price formula uses fuel oil for part of its escalation mechanism, there are numerous realistic scenarios for future oil and gas prices in which gas delivered through Iroquois could not compete with fuel oil, thus idling large amounts of pipeline capacity.

Third, Iroquois has proposed rate and financing mechanisms which would shield the project's sponsors from these very real market risks, and instead place those risks on other pipeline suppliers, their ratepayers, but most especially on the residential and small business gas consumers in the states of Connecticut, New York and New Jersey.

To us, it is obvious that if there is considerable question about the size of the future market, phased expansion of existing systems with much less environmental disturbance is clearly the prudent choice.

I would like to spend my last two minutes to give you our appraisal of how the Iroquois project came to be, what the formation of it was, and why we are all here today debating its merits.

For the past eight or ten years, executives of gas distribution companies in the Northeast have been frustrated. As good businessmen looking out for the interests of their shareholders and their ratepayers, they have seen potential opportunities for growth hampered by the lack of supply to serve those markets. Numerous proposals for expansion to generate that supply have been filed or proposed, but have gotten bogged down, in part due to the federal bureaucratic process, but also because of the turmoil in energy markets, leading to great market uncertainty. Progress has been much slower than desired. Tennessee has shared that frustration, for we have suffered as well.

Faced with these roadblocks, a group of these companies, armed with an entrepreneurial spirit, decided to take matters into their own hands and build their own pipeline, a pipeline that would be insulated in many respects, from the usual items that cause delay. Items such as debate over market need and debate over whether the proposed rate design fairly allocates cost and fairly allocates risks and rewards. Also, and very importantly, because the pipeline would have to be over 300 miles long, the sponsors of the pipeline had to make the diameter of it large enough to move enough volume to obtain some economies of scale, and thus generate unit charges per unit of gas delivered that would not be totally prohibitive. Thus, Iroquois was conceived.

As a businessman, I applaud their initiative and their inventiveness, but gas company executives and the regulatory authorities are also charged with looking out for the well-being of gas consumers. Because we believe the Iroquois project fails that test, we oppose it both as to the size and to the way it is structured on the grounds of prudence.

Tennessee's gas deliveries are consumed in more than 20 million homes all throughout the eastern half of the United States. The rates charged to every one of those consumers will be affected by the Iroquois project. To us, the situation is clear; there are very real questions surrounding Iroquois as to market need, capital costs, proper rate design, environmental impact and allocation of risk and reward. The only way to answer those questions is with full evidentiary hearings at the Federal Energy Regulatory Commission.

We are very encouraged that you have also supported such a hearing. In the meantime, economic phased expansion of existing systems is clearly the way to go.

Let me close with one last point: the big question for Tennessee that we are constantly asked, is "Do you have an alternative to Iroquois?" The answer to that question, as it is structured, is "No." No, because a full alternative to Iroquois is not needed. The project is too big and too risky for northeast gas consumers. The better question is, "Does Tennessee have alternatives to meet the real market opportunities for gas in the Northeast?" And the answer to that question is a resounding "Yes." We are as fully committed to this as we could possibly be. Thank you.

[The prepared statement of Mr. Ramsey follows:]

STATEMENT OF JOSEPH E. RAMSEY
VICE PRESIDENT, TENNESSEE GAS TRANSMISSION COMPANY
ON BEHALF OF
TENNESSEE GAS PIPELINE COMPANY, A DIVISION OF TENNECO, INC.
BEFORE THE
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION
OF THE
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

SUMMARY AND CONCLUSIONS

Tennessee Gas Pipeline Company ("Tennessee"), an operating unit of Tenneco Inc., is one of several major interstate natural gas pipeline companies that presently serve the Northeastern United States. I appreciate the opportunity to appear before this subcommittee today to discuss the Northeast gas market, Tennessee's past and future role in that market, and the major new pipeline system that has been proposed by Iroquois Gas Transmission System ("Iroquois").

Tennessee firmly believes that the Northeast is one of the best markets for natural gas in the United States. Our projections indicate that market demand may expand considerably in future years, and we are of course hopeful that we will continue to serve increasing market requirements.

Furthermore, Tennessee believes that fair and open competition would benefit the Northeastern gas market. In this regard, we were the first major pipeline in the Northeast to provide competitive, "open access" transportation services under the program established by the Federal Energy Regulatory Commission ("FERC") in its Order No. 436. As a result, our customers -- including most of the major gas distribution companies in the Northeast -- can now purchase natural gas from us or contract with us for the transportation of natural gas that has been purchased from other suppliers in either the U.S. or Canada.

Beyond that, Tennessee is committed to the economic expansion of its pipeline system in the Northeast to meet the needs of its customers. In the past six years alone, we have expanded the capacity of our pipeline system in New England by 32 percent. More recently, we have filed an application with the FERC to further expand service to ten of our New England customers by more than 90 million cubic feet of gas per day. Additionally, we have supported several other gas supply projects that have been proposed by our Northeast customers.

For the past year, Tennessee has sought to explore alternatives to the Iroquois project with our Northeast customers. Tennessee has met with its customers on a number of occasions to discuss more economical means of serving identifiable new markets. Recently, Tennessee has made a firm proposal to expand service to its Connecticut customers through an alternative supply project that would save the Connecticut consumers more than $100 million in comparison with the Iroquois project. That offer remains open and will hopefully serve as a basis for meeting the needs of Connecticut consumers in a timely, efficient and economic manner.

Notwithstanding our bullish optimism regarding the Northeast gas market and our past support for our customers' proposed Canadian gas supply projects, Tennessee cannot support the major new pipeline that has been proposed by Iroquois. First, our market information strongly suggests that the markets served by all of the Iroquois shippers cannot economically utilize an increase in available annual capacity of the magnitude proposed by Iroquois. We are therefore forced to conclude that Iroquois would largely serve existing markets -- not new, incremental requirements -- and would thus yield substantial excess capacity. The result would be less efficient and economical gas service in the Northeast.

Apart from the lack of need for the Iroquois project, Iroquois' proposals include rate and pricing arrangements that would ensure that Iroquois' system would be utilized before the existing systems of Tennessee or other competitors, even if there were no need for added capacity in the markets proposed to be served. This advantage would not be fairly obtained by Iroquois through less costly sources of gas or transportation economies, but rather through artificial means. As a result, the Iroquois project would unfairly burden consumers in Connecticut and other areas of the Northeast with additional costs.

Tennessee has also opposed Iroquois' application at the FERC on the grounds that Iroquois' proposals would unfairly shift the risk of its project to consumers who would receive no benefit from the project. To avoid economic and financial risks, Iroquois proposes very high "reservation fees" (the equivalent of demand charges) that would be payable in all events -- even if the customers received no service at all. The high reservation fees would shelter Iroquois from much of the risk that there may be no market for all or a substantial portion of the gas supplies to be transported through the proposed system. Instead, the risks and costs of any idle capacity would be shifted to customers of competing pipeline suppliers, including the many consumers who would derive no benefit whatsoever from the Iroquois project.

Finally, Tennessee remains convinced that its proposal to expand the capacity of its system in phases as the market grows is superior to the proposed Iroquois project. A phased construction of additional facilities on the existing Tennessee system would be far preferable to Iroquois' proposed new system in terms of both capital costs and environmental impacts.

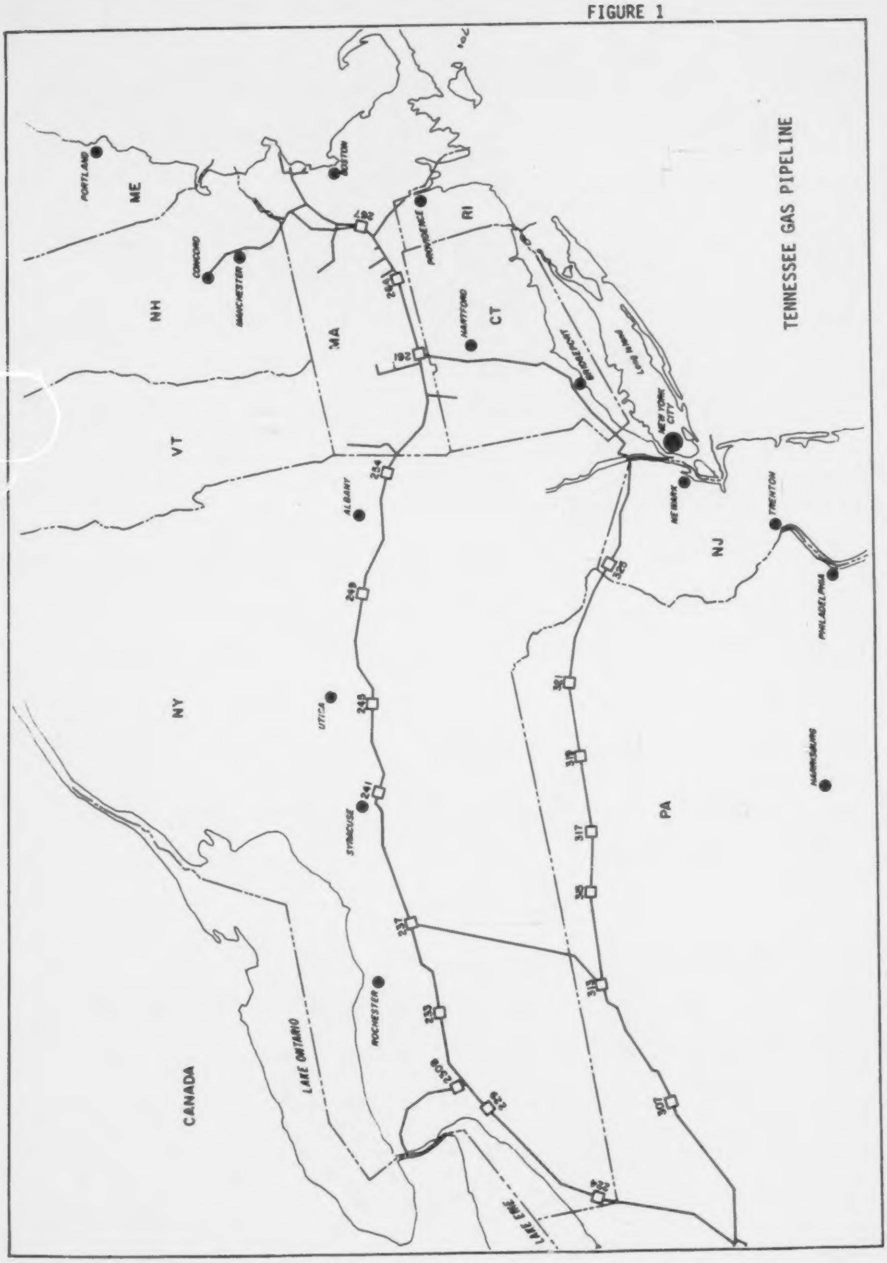
Tennessee's views are explained in further detail in the sections which follow. After discussing Tennessee's role in the Northeast market and its assessment of future market developments, our evaluation of the Iroquois proposal will be presented.

I. TENNESSEE'S ROLE IN THE NORTHEAST MARKET

Tennessee's pipeline system begins in the principal U.S. gas supply areas in the Southwest and then traverses 16 different states, including Pennsylvania, New York, New Jersey, Connecticut, Massachusetts, Rhode Island, and New Hampshire. In the Northeast, Tennessee's system includes two separate main lines -- the "200" main line through New York, Massachusetts, Rhode Island, and New Hampshire, and the "300" main line through Pennsylvania, New Jersey, New York, and Connecticut. The two lines connect in Massachusetts. A map of Tennessee's pipeline system in the Northeast is provided in Figure 1.

Tennessee presently serves 103 customers, most of which are local distribution companies ("LDCs") that sell gas at retail to residential, commercial, and industrial end users. Among these customers are 10 of the 11 LDCs in the Northeast that Iroquois proposes to serve. In evaluating the Iroquois proposal, Tennessee necessarily considers both its own interests and those of its customers, including the non-Iroquois customers.

FIGURE 1



TENNESSEE GAS PIPELINE

ME
NH
VT
MA
CT
RI
NY
NJ
PA
CANADA
LAKE ONTARIO
LAKE ERIE
PORTLAND
BOSTON
CONCORD
MANCHESTER
PROVIDENCE
HARTFORD
BRIDGEPORT
LONG ISLAND
NEW YORK CITY
NEWARK
TRENTON
PHILADELPHIA
HARRISBURG
ALBANY
UTICA
SYRACUSE
ROCHESTER
261
254
249
245
241
237
233
230B
307
313
317
319
321
325

Tennessee's customers purchase their gas supplies from Tennessee or from our competitors in various supply areas. A portion of Tennessee's supplies are purchased from Canadian suppliers, but the bulk of our supplies are obtained from conventional, domestic sources of supply in Texas, Louisiana, and the Gulf of Mexico. Instead of purchasing gas supplies from Tennessee, our customers can and do purchase gas from other suppliers in the U.S. and Canada. Transportation to the customers' markets is provided by Tennessee and other interstate pipelines.

In assessing the Northeast market and the Iroquois proposal, it must also be kept in mind that Tennessee is by no means the only pipeline that serves the Northeast. In New England, Algonquin Gas Transmission Company is a major competitor. In the New York-New Jersey metropolitan area, Texas Eastern Transmission Corporation and Transcontinental Gas Pipe Line Corporation serve most of the market. And in New York, Consolidated Gas Supply Corporation, National Fuel Gas Supply Corporation, and Columbia Gas Transmission Corporation are also significant pipeline suppliers. Several of these pipelines have voiced their opposition to the Iroquois project on much the same grounds that have been advanced by Tennessee.

The Northeast represents approximately 36 percent of Tennessee's market. As a result, we are constantly assessing Northeast gas markets to determine if there are means of increasing our services in that region.

Tennessee's service to the Northeast was initiated in 1950 and has been expanded frequently in the intervening years in response to growing demand. In the most recent six years, for example, Tennessee has spent $185 million to expand its capacity in the Northeast by 250,000 dekatherms ("Dth") of natural gas per day -- an increase of 15% in Tennessee's Northeast delivery capacity. Most of that new capacity was added in New England, where Tennessee increased its delivery capacity by approximately 32%. Tennessee's pipeline capacity in Connecticut was increased by 30% in that period. In addition, the many other pipelines that also serve the Northeast have also significantly expanded their pipeline capacity in recent years.

In addition to past supply projects, Tennessee's present Northeast expansion projects also vividly demonstrate its continued commitment to meet the requirements of its customers:

-- Construction is currently underway by Tennessee on a $43 million project to increase firm natural gas sales service for 13 customers in New England and New York, including two Connecticut customers. When necessary regulatory authorizations are received, this gas sales service will be converted to a Canadian gas transportation service (the so-called "Boundary II" service) from the U.S.-Canadian border near Niagara Falls, New York to the customers' distribution systems.

-- Tennessee is seeking FERC authority to provide a new firm sales service for Providence Gas Company of 30,000 Mcf of gas per day. To provide the service, Tennessee plans to spend roughly $32 million on new facilities, including 8.4 miles of new parallel pipeline ("looping") along Tennessee's "200" main line and a 32-mile lateral to Providence Gas from that line.

-- Tennessee is also seeking FERC approval of its proposal to transport 50,000 Mcf of Canadian gas per day from the U.S.-Canadian border to a new power plant to be built in Burrillville, Rhode Island. For this project Tennessee would spend $52 million on new facilities, including 21.9 miles of pipeline looping along its "200" main line and 11.2 miles of looping along the Niagara Spur lateral from Canada.

-- Tennessee has also requested FERC authority to construct additional facilities that would substantially increase Tennessee's capability to transport increased volumes of Canadian natural gas over its system. Tennessee has proposed to spend roughly $15 million on new facilities that would increase its permanent import capacity from Canada by 132,500 Mcf of gas per day.

-- Tennessee has recently filed an application for FERC authority to expand natural gas sales service to ten LDCs in Connecticut, Massachusetts, Rhode Island, and New Hampshire (including The Southern Connecticut Gas Company) by about 91,000 Mcf of gas per day. To provide the increased sales service, Tennessee plans to spend about $48 million to construct main line loops in New York and Massachusetts, increase compression in Massachusetts, loop or replace lateral pipelines in Massachusetts and New Hampshire, and upgrade or add measurement equipment in New Hampshire and New York. We offered participation in this project to all other New England customers as well.

Tennessee's recent and pending expansion projects are summarized in Figure 2. As shown, these projects involve a total of over $320 million to increase capacity in the Northeast by 554,000 Dth per day. Most of the added delivery capacity would benefit the New England area, where most of the growth in gas demand is expected.

As part of its marketing efforts in the Northeast, Tennessee has also sought to cooperate with its customers in their plans to obtain greater supplies of

FIGURE 2

TENNESSEE GAS PIPELINE COMPANY
NORTHEAST PROJECTS
(DEKATHERMS PER DAY)

PROJECT	NORTHEAST	DIRECT CAPITAL COST (MM$)
CP80-65	76,215	41.0
CP84-441	83,047	87.4
BOUNDARY PHASE I	40,409	15.2
CP86-251	51,251	42.3
NOREX	91,358	39.5
NIAGARA SPUR UPGRADE	132,500	15.0
OCEAN STATE POWER	50,000	52.0
PROVIDENCE GAS	30,000	32.0
TOTAL	554,780	324.4

natural gas from Canada. Tennessee agreed to provide transportation for the customers' "Boundary" project when other pipelines reportedly would not. We supported their Boundary project at the FERC and in Canada when other pipelines opposed the project. We proposed a transportation system designed to deliver the Boundary volumes. Even now, we are proposing to assist them in increasing the Canadian volumes they receive through the Boundary project.

In addition, we have attempted to provide our Northeast customers with alternatives to the Iroquois project on several occasions. In June of 1986, Tennessee met with customers involved in the Iroquois project. At that meeting, Tennessee showed how Tennessee's system could be expanded to transport the same volume of gas from the U.S.-Canadian border to the Iroquois customers at the same delivery points with the construction of just 280 miles of pipeline (compared with the 398 pipeline miles now proposed by Iroquois). Tennessee's subsequent analyses showed that use of Tennessee's right-of-way would require 70% less new permanent right-of-way than Iroquois' proposal and 55% less construction right-of-way. Further, Tennessee estimated that the direct capital cost of its project would be approximately $50 million less than Iroquois' original proposal.

In light of Tennessee's doubts regarding the need for an immediate capacity increase of the size proposed by Iroquois, Tennessee has not proposed to construct a complete alternative to Iroquois all at once. Rather, Tennessee would expand its system gradually and steadily to satisfy the market growth of its customers. In contrast with the Iroquois project, construction on Tennessee's existing pipeline system could be scheduled in stages to provide increments of additional capacity synchronized with the growth of customers' requirements. Such a phased construction of facilities would minimize the costs of excess capacity and permit the avoidance of construction in any environmentally sensitive areas.

Despite these efforts, the Iroquois customers have expressed little or no interest in Tennessee's expansion alternatives to date. Nevertheless, Tennessee is continuing to discuss these matters with its customers.

These ongoing efforts to meet demand in Northeast markets refute the assertions of Iroquois that Tennessee is not willing to satisfy growing demand. As a matter of prudent business practice, of course, Tennessee does not agree to every new service request, particularly when the need for new service is doubtful, the size of the request greatly exceeds reasonable market growth estimates, or the proposed terms of service are unacceptable. However, Tennessee remains ready, willing, and able to expand its services on reasonable terms where the prospects for market growth are reasonable.

II. OUTLOOK FOR THE NORTHEAST GAS MARKET

Tennessee is engaged in a continuous review of the Northeast gas market as a necessary part of its business planning activities. Among other things, we engage several different energy consultants; conduct an ongoing review of relevant data generated by the Department of Energy, the Department of Commerce, the Federal Reserve Board, and other governmental and private bodies; meet with customers on a periodic basis to discuss market trends and developments; participate in industry trade group analyses of gas market patterns; maintain an up-to-date and accurate understanding of pertinent statistical information, including dispatching characteristics and load duration curves; and perform in-depth, on-the-ground analyses of relevant end use markets. As an FERC administrative law judge recently concluded, Tennessee's Economic Analysis and Long Range Planning Department "has been recognized as an industry leader in forecasting energy supply and in demand and price forecasts."

In our studies we generally treat New England, New York, and New Jersey as separate and discrete markets in the Northeast, since each of these regions is served by different electric generation power pools. In addition, we generally assume that natural gas is price competitive with residual fuel oil. At the same time, however, we normally conduct a sensitivity analysis to determine demand if gas is not price competitive with residual fuel oil.

Tennessee's present analysis and forecasts of the Northeast gas market are presented below.

Total Energy Consumption

Energy consumption in the Northeast declined by about 11 percent during the 1970-1984 period, even though total U.S. energy consumption rose during the same period by about the same percentage. As shown in the table below, total energy consumption declined in each of the three Northeast regions:

Total Energy Consumption

	(Trillion British Thermal Units ("TBtu's"))		
	1970	1984	Decline
New England	2,885.6	2,691.7	(6.7%)
New York	4,265.8	3,485.1	(18.3%)
New Jersey	2,004.1	1,953.8	(2.5%)
NORTHEAST	9,155.5	8,130.6	(11.2%)

While there was an overall decline in total energy consumption, there were significant changes in the "energy mix" in each of the regions. As a general matter, the use of fuel oil declined substantially, while the use of natural gas, hydroelectric energy, and nuclear power increased.

The changes in the New England energy mix were typical:

	Energy Market Shares - New England	
	1970	1984
Oil	84.4%	63.1%
Natural Gas	8.7%	13.0%
Other	6.9%	23.9%

Fuel oil's share of the New England market shrank substantially, as oil consumption declined from 2.4 quadrillion Btu's (Quads") in 1970 to 1.7 Quads in 1984 -- a decrease equivalent to 350,000 barrels of oil per day or 29 percent. Nevertheless, fuel oil's share of the New England market is still 50% greater than in other areas of the United States. In sharp contrast, nuclear energy consumption experienced a fourfold increase, consumption of hydroelectric energy almost doubled, and annual natural gas use increased by almost 100 TBtu's, or roughly 270,000 Mcf of gas per day.

New York's energy mix experienced similar changes in the same period:

Energy Market Shares - New York

	1970	1984
Oil	62.5%	50.0%
Natural Gas	17.2%	23.4%
Other	20.3%	26.6%

Oil consumption in New York declined from 2.7 Quads in 1970 to 1.7 Quads in 1984 -- a decrease of 460 thousand barrels per day. In contrast, natural gas use increased by 81.6 TBtu, or 220,000 Mcf of gas per day. The use of other forms of energy in New York also increased during the period. In particular, hydroelectric energy almost doubled, and nuclear power consumption grew by almost 400 percent.

The same general trends in energy markets were experienced in New Jersey:

Energy Market Shares - New Jersey

	1970	1984
Oil	74.6%	54.9%
Natural Gas	16.6%	22.1%
Other	8.8%	23.0%

Use of oil in New Jersey declined from 1.5 Quads in 1970 to 1.1 Quads in 1984, a reduction of 180,000 barrels per day. In comparison, natural gas use increased by 98.4 TBtu, or 270,000 Mcf of gas per day. Nuclear energy use increased by 60% over the period.

While these overall trends in total energy consumption and market shares are instructive regarding historical

By comparison, residential consumers' natural gas consumption increased only modestly in New England and New Jersey, and declined in New York:

	Residential Consumption - Natural Gas (TBtu)		
	1970	1984	Change
New England	135.1	156.0	15.5%
New York	357.3	347.3	(2.8%)
New Jersey	144.5	156.3	8.2%
NORTHEAST	636.9	659.6	3.6%

Significantly, natural gas consumption remained relatively stagnant even though the number of homes heated by gas almost doubled:

	Homes Heated By Natural Gas (Thousands -- saturation levels in parentheses)		
	1970	1984	Increase
New England	734.2 (46%)	1,113.2 (67%)	51.6%
New York	695.9 (39%)	1,105.3 (41%)	26.5%
New Jersey	1,513.5 (47%)	1,915.3 (64%)	58.8%

The increase in the number of gas-heated homes did not result in a similar increase in natural gas consumption because of conservation efforts, which reduced average household energy consumption considerably:

	Average Household Energy Consumption (MMBtu)		
	1970	1984	Decline
New England	192	114	(40.6)%
New York	143	104	(27.0)%
New Jersey	174	121	(30.6)%

patterns, natural gas demand projections necessarily require a focused analysis of individual end use markets -- residential, commercial, industrial, and electric generation. Tennessee's present projections for these markets are presented below in the analytical framework in which they are derived.

Natural Gas Consumption -- Residential Consumers

Despite generally good economic growth in the Northeast during the 1970-1984 period, the total consumption of all forms of energy by residential consumers dropped in New England, New York, and New Jersey:

	Residential Consumption -- Total (TBtu)		
	1970	1984	Decline
New England	698.3	507.6	(27.3%)
New York	845.7	654.5	(22.6%)
New Jersey	387.3	315.2	(18.6%)
NORTHEAST	1,931.3	1,477.3	(23.5%)

Residential consumers in each of the three regions consumed much less oil, slightly more natural gas, and much more electricity. Increases in electricity consumption by residential consumers were dramatic:

	Residential Consumption - Electricity (TBtu)		
	1970	1984	Increase
New England	73.5	104.5	42.2%
New York	87.0	109.0	25.3%
New Jersey	41.4	58.0	40.1%
NORTHEAST	201.9	271.5	34.5%

In terms of future trends in the consumption of natural gas by residential consumers in the Northeast, we foresee mixed results. As a general proposition, electricity should increase its share of the residential market relative to natural gas because in much of the region the homes are too spread out to justify construction of new gas distribution facilities. Moreover, more efficient heating equipment and other conservation measures should continue to reduce average household energy requirements.

On the basis of these and other considerations, we forecast small declines in residential natural gas consumption in New York and New Jersey as a result of slow population growth and continuing conservation. On the other hand, we project significant increases in the residential consumption of natural gas in New England as saturation levels (presently 67%) increase in the direction of the national average (88%). Our estimates for the 1984-2000 period are presented below:

	Projected Residential Consumption of Natural Gas (TBtu)		
	1984	2000	Change
New England	156	192	23.1%
New York	347	313	(9.8%)
New Jersey	156	143	(8.3%)
NORTHEAST	659	648	(1.7%)

Natural Gas Consumption -- Commercial Consumers

As in the case of the residential market, energy consumption by commercial end users also fell in all three regions of the Northeast during the 1970-1984 period:

	Commercial Consumption -- Total (TBtu) 1970	1984	Decline
New England	365.9	291.7	(20.3%)
New York	670.4	497.9	(25.7%)
New Jersey	238.1	213.9	(10.2%)
NORTHEAST	1,274.4	1,003.5	(21.3%)

However, the decline in commercial end users' total energy consumption was wholly attributable to reduced fuel oil use. Utilization of natural gas grew appreciably in all three Northeast regions:

	Commercial Consumption - Natural Gas (TBtu) 1970	1984	Increase
New England	59.9	82.6	37.9%
New York	143.8	175.4	22.0%
New Jersey	57.7	86.4	49.7%
NORTHEAST	261.4	344.4	31.8%

Tennessee projects continued increases in natural gas consumption by commercial end users in the Northeast that should parallel the continued expansion of the region's economy. In particular, the Northeast's higher disposable income should spur growth in commercial enterprises and resulting increases in their natural gas requirements.

On the other hand, other factors point to less optimistic projections for the commercial market. To begin with, natural gas will continue to face stiff competition in commercial markets from electricity, which can be expected to serve its fair share of any increased requirements. Additionally, changes in the Federal tax laws are expected to reduce growth in real estate development, upon which many commercial enterprises depend. Furthermore, commercial consumption of natural gas in the Northeast could suffer a downturn in the event of a decline in the health of financial markets or in the level of defense spending in the region.

Based upon our assessment of all relevant considerations, we forecast the following increases in consumption:

	Projected Commercial Consumption of Natural Gas (TBtu)		
	1984	2000	Increase
New England	82.6	108	31%
New York	175.4	190	8%
New Jersey	86.4	94	9%
NORTHEAST	344.4	392	14%

Natural Gas Consumption -- Industrial Consumers

Total energy consumption by industrial end users also declined in all three regions of the Northeast during the 1970-1984 period:

Industrial Consumption -- Total
(TBtu)

	1970	1984	Decline
New England	609.4	358.2	(41.2%)
New York	950.3	482.7	(49.2%)
New Jersey	570.2	404.8	(29.0%)
NORTHEAST	2,129.9	1,245.7	(41.5%)

Again, fuel oil reductions accounted for the bulk of the drop in consumption. Natural gas consumption in industrial markets grew in New England and New Jersey but declined slightly in New York:

Industrial Consumption - Natural Gas
(TBtu)

	1970	1984	Change
New England	46.6	69.9	50.0%
New York	119.1	111.0	(6.8%)
New Jersey	82.3	87.4	6.2%
NORTHEAST	248.0	268.3	8.2%

Electricity made even greater inroads in industrial markets, particularly in New England and New York. Those regions witnessed the development of light, "high tech" industries which generally rely more on electricity:

Industrial Consumption - Electricity
(TBtu)

	1970	1984	Increase
New England	67	87	29.9%
New York	93	108	16.1%
New Jersey	52	52	--
NORTHEAST	212	247	16.5%

As far as the future is concerned, Tennessee does not believe that the prospects for future growth in the Northeast's consumption of natural gas for industrial end uses are bright. Indeed, we project small reductions in consumption.

Industrial growth in the Northeast will surely continue to be experienced as a result of the continuing formation of new "high-tech" enterprises. Those firms, however, rely primarily on electricity. In addition, demand for gas in heavy manufacturing applications in the Northeast is expected to decline. Our resulting projections of natural gas consumption in industrial markets are as follows:

	Projected Industrial Consumption of Natural Gas (TBtu)		
	1984	2000	Change
New England	69.9	70.0	--
New York	111.0	91.0	(18.0%)
New Jersey	87.4	76.0	(13.0%)
NORTHEAST	268.3	237.0	(11.7%)

Natural Gas Consumption -- Residential, Commercial, and Industrial Markets

As a result of the factors that have been discussed, Tennessee does not foresee a significant increase in the consumption of gas in the Northeast in residential, commercial, and industrial markets. In fact, a summary of our forecasts for those markets shows a generally flat projection:

Projected Consumption of Natural Gas --
Residential, Commercial, and Industrial Markets
(TBtu)

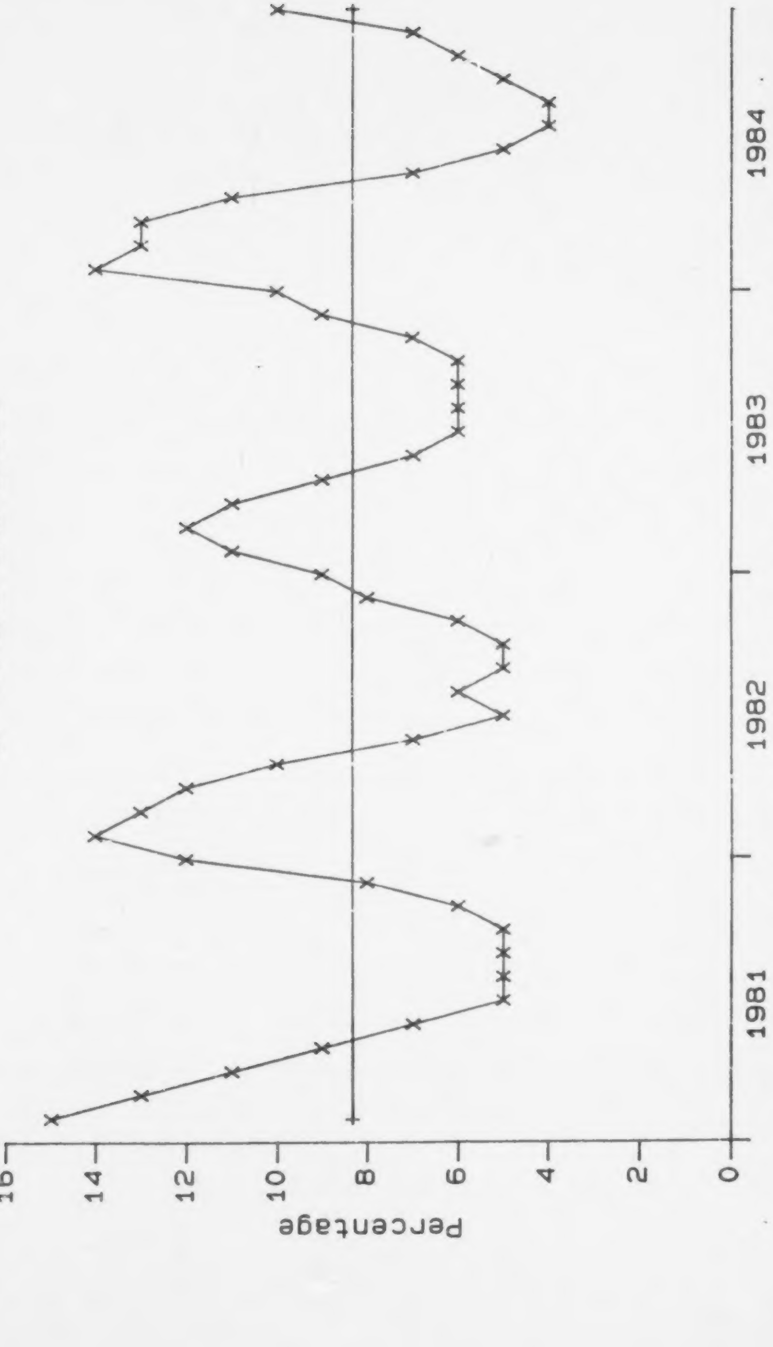
	1984	2000	Change
New England	309	370	19.7%
New York	634	594	(6.3%)
New Jersey	330	313	(5.2%)
NORTHEAST	1,273	1,277	0.3%

In spite of our projection of little overall growth in these markets, there will be significant increases in demand in certain areas. Moreover, there will be several important trends in market demand. First, there will be growth in the demand for gas for space-heating purposes. At the same time, there will be a counterbalancing decline in gas demand during "off peak" periods -- principally the summer months. In these circumstances, further pipeline capacity may be needed for "peaking" purposes, but not for increases in annual, year-round gas loads. Moreover, "load levelers" will be needed in the "off peak" period to make more efficient use of pipeline facilities.

The nature of load swings in the Northeast on Tennessee's pipeline is exemplified in the graph on Figure 3, which shows Tennessee's residential, commercial, and

FIGURE 3

NEW ENGLAND
MONTHLY GAS SALES
AS A PERCENTAGE
OF ANNUAL GAS SALES



- Includes residential, commercial, and industrial sales industrial sales in the Northeast as a percentage of its annual gas sales. As you will note, peak period sales have been more than three times greater than off-peak sales in past periods. Moreover, we foresee a growing tendency for higher "peaks" and lower "valleys" -- what is referred to as an increasing "load variance". Power plant sales and other "load levelers" will be needed to fill these valleys and levelize demand.

Natural Gas Consumption -- Electric Generation

As shown in our previous analyses, we expect electricity to capture an increasingly large share of end use markets in the Northeast in the years ahead. While this growth in end use markets may be largely at the expense of natural gas, the increased electric generation demand presents an opportunity for natural gas. While the demand for gas in powerplants is expected to remain volatile and uncertain, we believe that there is a potential for significant growth in this area.

From 1970 to 1985, electricity consumption grew at an average annual rate of 3.2% in New England, 2.0% in New York, and 2.3% in New Jersey. We expect this growth to continue but at somewhat reduced rates -- average annual growth rates of 2.8% in New England and 1.5% in New York and New Jersey. The expected moderation of the growth rates is attributable primarily to demographic factors, including a more stagnant labor pool after the "baby boomers" have been assimilated into the workforce in the mid-1990's.

To determine gas demand in the powerplant market, each region of the Northeast must be separately considered, since they are served by differing electric generation power pools. New England is served by NEPOOL, New York by NYPOOL, and New Jersey by PJMPOOL (which also serves Pennsylvania and Maryland).

Each of the individual power pools has a different generating capacity for oil and gas. For purposes of our analysis, we used load duration curves that assumed that hydroelectric, nuclear-fired, coal-fired, and combined cycle plants would be regarded as base load plants. We further assumed that natural gas would be competitive with residual fuel oil. Finally, we did not project increased gas demand that might be created in the electric generation market as a result of new environmental laws and regulations.

Our forecast of potential natural gas consumption in electric generation markets shows a healthy growth in all three regions of the Northeast:

Potential Consumption of Natural Gas -- Electric Generation
(TBtu)

	1984	2000	Change
New England	40	173	332%
New York	176	284	61%
New Jersey	99	132	33%
NORTHEAST	315	589	87%

It must be emphasized, however, that this is our forecast of the average growth of natural gas for electric generation in the Northeast during the 1984-2000 period. For the rest of this decade, demand is expected to fall as nuclear plants become operational and displace requirements for gas and oil.

Natural Gas Consumption -- All Markets

Assuming that natural gas can successfully capture and retain all potential demand for natural gas in Northeast electric generation markets, we project a solid overall growth of 18% in the Northeast gas market:

Potential Consumption of Natural Gas -- All Markets
(TBtu)

	1984	2000	Increase
New England	349	543	56
New York	810	878	8
New Jersey	429	445	4
NORTHEAST	1,588	1,866	18%

One final analysis remains to be performed, however. Previously, we assumed that natural gas would be pricecompetitive with residual fuel oil. If that assumption proves incorrect, then demand would be substantially lower, since most electric generation loads and many industrial end users would then switch to oil in lieu of natural gas.

	Northeast Gas Demand (TBtu) 1984	2000	Change
Price-Competitive	1588	1866	18%
Not Price-Competitive	1588	1334	(16%)

Clearly, then, future oil price trends will have a major effect on future gas demand. Unfortunately, those trends cannot be predicted with any degree of confidence in view of the volatility and uncertainty of oil prices. In the last two years alone, crude oil prices have plummeted from $28 per barrel to $10 per barrel and have now climbed back up to $22 per barrel.

III. THE IROQUOIS PIPELINE PROJECT

Tennessee has intervened in the FERC proceedings regarding Iroquois' application for FERC authority under the Natural Gas Act to construct and operate a major new pipeline to serve Northeast markets. While Tennessee has actively supported and even participated in other gas supply projects proposed by LDCs in the Northeast, Tennessee has determined that it must oppose the Iroquois project. A general explanation of Tennessee's position is provided below.

Iroquois' application generally proposes to construct a 398-mile pipeline system through New York and Connecticut at a cost of $407 million (in 1986 dollars).

The pipeline system would be constructed by the Iroquois partnership, which would be formed at some time in the future. A 50% interest in the partnership would be owned by an affiliate of the major Canadian gas pipeline company, TransCanada PipeLines Limited; the other 50% would be owned by affiliates of some of the participating LDCs and by other entities.

The Iroquois project would be capable of transporting up to 353,000 Mcf per day of western Canadian gas to LDCs in the Northeast. Iroquois projects that the system would initially operate at an annual load factor of 80%, which would mean that it would deliver 103 billion cubic feet of gas into Northeast markets in its first year of operation.

Based upon its Northeast market forecasts, Tennessee has serious doubts that the markets in New England, New York, and New Jersey can economically utilize an increase in available capacity of the magnitude proposed by Iroquois. Iroquois would provide, in one year, an increase of over 8% in the existing pipeline delivery capacity of the Iroquois customers. For some of the customers, the increases would be much greater. For example, the increases in pipeline capacity for the three Connecticut companies would range from 41% to 45%. Even Iroquois' own market forecasts have shown that an immediate 8% overall increase in capacity is not needed. Iroquois' forecasts have shown growth rates for natural gas demand in the range of 1.2% annually through the year 2000 for New England and well below 1% annually for the Mid Atlantic states.

The construction by Iroquois of substantial excess capacity into these markets can only result in higher gas transmission costs in the Northeast until market growth finally catches up with excess capacity, if ever. Significantly, moreover, these higher costs would not be borne by Iroquois, but instead by gas consumers who would derive no benefit from the Iroquois project.

Recognizing the risks and uncertainties involved in constructing a major new pipeline into the Northeast market at this time, Iroquois has asked the FERC to approve tariff and financing mechanisms that would permit Iroquois to avoid both all significant financial risks and all economic risks that might arise from marketing or competitive factors.

First, Iroquois proposes to charge reservation fees that would guarantee the recovery of all debt service charges and operating and maintenance costs in all events. Such reservation fees would permit Iroquois to undertake a "project financing" that would shield it from any liability for the pipeline system's debt obligations.

Second, the high reservation fees proposed by Iroquois would also insulate it from much of the risk that there may be no market for all or a substantial portion of the gas supplies to be transported through the proposed system. Instead, the risks and costs of any idle capacity would be shifted to residential and small business gas consumers in Connecticut and elsewhere.

Third, Iroquois' proposals have been designed to provide Iroquois with a lower delivered commodity cost than Tennessee or other U.S. suppliers would be permitted to offer by the FERC under the same circumstances. Significantly, this advantage would not be fairly obtained through less costly sources of gas or transportation economies. Instead, by structuring its supply arrangements as a direct sale of Canadian gas to LDCs, Iroquois seeks to obtain the lower purchased gas commodity costs (and higher demand costs) that are permitted under Canadian ratemaking principles but are not allowed by the FERC for domestic supplies. Similarly, Iroquois' proposed transportation rates are structured to obtain artificially lower commodity rates (and higher demand rates) through the low-risk "project financing" that is proposed.

Through these two devices, Iroquois' customers would pay lower commodity charges for Iroquois gas and would thus be induced to baseload that gas in lieu of existing supplies that carry much lower demand charges and are less expensive on a unit cost basis. As a result, the Iroquois project would reap unfair competitive benefits and create unjustified subsidies.

If all customers had to choose either Tennessee or Iroquois as sole suppliers, the new pipeline would be clearly uneconomic to build. Because of its artificially lower commodity price, however, Iroquois would become the LDCs' baseload supplier of choice as a result of its lower marginal costs. Other suppliers, with higher marginal costs, would be used exclusively for peaking purposes -- when the baseload supplies were insufficient during periods of peak gas demand. This result, obtained through an artificial tilting of Iroquois' rate structure, would be neither efficient nor economic and would cause a significant increase in the price that the ultimate consumer in Connecituct would pay for natural gas.

Senator **Weicker**. I would suppose that the real response to your testimony would be given by the representatives of Northeast and Connecticut Natural Gas and Southern Connecticut Gas. What I have to say is an observation. I did not bring Iroquois into the state of Connecticut, and neither did the people whose towns the pipeline's going through. The free enterprise system did, which means that somebody was not supplying, either in terms of amount or price, the gas.

Now, the only two people who have been supplying the state of Connecticut are Tennessee and Algonquin. I appreciate the applause you got, but we are in this predicament because obviously some matters occurred that did not quite meet the needs of the State.

Now we are told by you that there is a plan afoot, in other words, to bring that to pass. The question that I have to ask in all logic is, how long will that attitude last in the absence of an Iroquois or somebody else? That is the question, I think, that I have to ask in the long range.

You say the northeast is one of the best markets for gas; why then is there a dissatisfaction with what it is that Tennessee Gas and Algonquin have given to the State up until this point? I understand the turmoil in energy markets, that is something that we all live with, but I have to repeat my opening statement on this aspect of the problem. As I said, these hearings should be fair and they should be fair in alerting the State to all the facts. Nobody in the State is going to advocate building another nuclear power plant, I know that. I have no control over OPEC getting its act together and raising that price of oil. Those are matters that I think are fairly well established.

Now, what is there in the record, or what is there that we have in hand, concrete, that will guarantee that if these fellows come off the scene, you are going to fulfill your obligations which clearly you have been deficient in up to this point?

Mr. **Ramsey**. That is certainly a fair characterization of what has happened over the past five or six years in that we have not been able to perform the expansions on as timely a manner as we had hoped to do. But we have been successful, we have been willing to work with our customers at a time when other pipelines might not necessarily have done that.

We have spent, as I mentioned, $185 million expanding facilities into the Northeast. There is a construction project going on at this very minute in New York and Massachusetts to expand our deliveries. Those are the facilities that will eventually be converted to the Boundary gas volumes that we were talking about. We have made proposals for market expansions to all of our northeast customers; we have filed a new NOREX project, Northeastern expansion project, just in the last three or four months. That will cost us on the order of $48 million. It will increase delivery capacity into the New England area by 91 million cubic feet a day. The proposal made to the Connecticut companies is a firm proposal to meet their needs and I should point out it is a proposal to transport Canadian gas, not in any way a proposal to try to force them to buy gas from Tennessee or transport gas from Tennessee all the way from the Gulf Coast.

Senator WEICKER. Is the failure to respond to this offer a result of waiting to see what happens to Iroquois?

Mr. RAMSEY. That question could perhaps be better addressed to them, but the response we got in the meeting was that they were not interested in a proposal that did not give them the same full volumes that Iroquois would give them. This proposal was a smaller proposal than that, but it was a proposal that would have increased Tennessee's delivery capacity to three major Connecticut companies by some very sizeable percentages. The smallest amount was 12 percent. The other two companies would receive increases larger than that. So, it is not a small, piddling proposal by any means. It would have a capital cost in excess of $50 million, we would file it just as soon as we could get the contractual arrangements worked out with these companies, and it is a firm proposal. We would do it.

Mr. ROONEY. Senator, I think the Connecticut companies will best be able to answer that question, but let me just add that I think the key phrase is as Mr. Ramsey says, the gas that they need. What he thinks that they need is the real import of that as opposed to what the Connecticut companies think they need.

Senator WEICKER. I cannot hear you either.

Mr. ROONEY. I said the key phrase in Mr. Ramsey's statement was they proposed to give the Connecticut companies the gas they need. What he really means is what he believes, Tennessee believes they need, not what the Connecticut companies themselves think they need. So, I think they are the ones who can give you a direct answer to that.

Mr. RAMSEY. Can I respond to that?

Senator WEICKER. Of course you can.

Mr. RAMSEY. As a regulated interstate pipeline, every investment we make must be done under the terms of a very deep scrutiny as to the prudence of the investment. We cannot merely take at face value what the customer says as his requirement for gas and put facilities in the ground in order to deliver that, because we will be impacted by it if the customer guesses wrong. All of our gas customers will be impacted by it if that customer guesses wrong. We have done the market analysis and our filed statement, of which we have extra copies available here, has very extensive detail on our market analysis. The debate over the numbers, the debate over the market analysis, is something that should be worked out in full hearing.

Senator WEICKER. Let me ask a question of the representatives of Iroquois. What percentage of the Iroquois is owned by the Connecticut utilities?

Mr. ROONEY. I believe it is 24 percent, Senator, is the ownership share.

Senator WEICKER. So it would be safe to say at this juncture they have a clear cut interest in Iroquois prevailing.

Mr. ROONEY. They have interest as investors and they have interest as the public utilities serving the State.

Senator WEICKER. But this is a dual interest, which I think, not just as a public utility, but as an investor.

Mr. ROONEY. That is correct. I think it is also important to note, Senator, that we have a number of shippers that are not investors, companies such as Consolidated Edison of New York, Long Island Lighting Company, Central Hudson Electric and Gas.

Senator WEICKER. We ask Tennessee Gas, do these utilities have any investment interest in Tennessee Gas Transmission?.

Mr. RAMSEY. No, they do not.

Mr. ROONEY. Do you want to give us some?

Senator WEICKER. Again, I think that, I repeat that obviously as I said before, it would be nice if the present system were working. Something happened and it is not. I am delighted to hear the new offer from Tennessee. It would be nice to see that in more concrete terms than merely an offer to these utilities which own a part of Iroquois. I would have turned you down too, if I were them.

My concern gets back to the initial concern expressed, that the right thing is done in terms of need and DPUC is not giving me an answer at the State level. I am not so sure that I care to, I am willing to listen to Mr. Kumins. Obviously you are both going to present your cases in the most favorable light. After all this is done, I want to make sure that number one, the rights of the property owners are protected, and number two, the energy needs of the State are protected. Those that are charged with the responsibility when it comes to the environment and when it comes to need, i.e., the State agencies, are not giving me my answer right now. At least the draft answer I have, I am now told, really is not the answer. There had better be an accountability here pretty damn fast.

I have long stated that the particular energy needs of this state and others should not be guided by political considerations. I am afraid I am seeing a lot of that at this junction.

I have no further questions at this time. If there are, would you please remain in the auditorium in case questions are raised by the three Connecticut utility companies that will now testify.

Incidentally, while the next panel is coming up, if there are those that wish to make a statement, and I would appreciate it if the statement were restricted to a couple of minutes per person, and that any written statement be included in the record. Come up the side of the stage here and give your name to Tim Osborn of the Committee staff so that I can call you up to speak at the conclusion of this particular presentation.

The next panel consists of Phillip Ashton of the Northeast Utilities, Victor Frauenhofer of Connecticut Natural Gas Company and John Larson of the Southern Connecticut Gas Company. Gentlemen, proceed in any way which you can.

STATEMENT OF JOHN H. LARSON, PRESIDENT AND CHIEF EXECUTIVE OFFICER, SOUTHERN CONNECTICUT GAS CO.

Mr. Larson: Thank you, Chairman.

We do appreciate the opportunity to appear at this hearing. My name is John Larson. I am president and chief executive officer of the Southern Connecticut Gas Company, one of the partners in the Iroquois gas transmission project.

There are three major gas utilities in this State, and we serve over 450,000 Connecticut homes, businesses and industries. In the case of Southern Connecticut Gas, we serve approximately 140,000 customers in 22 communities along the Connecticut shoreline.

We have a growing service area. Notwithstanding which you have heard already today, our firm growth last year was 7 percent. Our compounded growth normalized for weather over the last three years, has been about 3.6 percent. If you just take the heating load, it is somewhere around 5 percent compounded growth, so there definitely is a demand in our service area for additional supplies.

We have appeared before the DPUC and we took some comfort in the fact that the DPUC did recognize the need for additional gas supplies in the State. Incidentally, that same recognition has been voiced by the Office of Policy and Management in the State, I think as far back as probably 1980 or 1981 recognizing the fact that Connecticut only has two interstate pipelines serving it and the fact that that constrains capacity and limits competition.

I would like to respond to some of the things that you have heard just recently from Tennessee. Tennessee did make a proposal to our companies; it was made last Wednesday. We did not take favorably to the proposal for several reasons. One, it reduced the amount of gas—and it is Canadian gas, incidentally, our gas that we have contracted for in Canada that they are talking about moving—from 35 million cubic feet a day down to 14 million cubic feet a day. They reduced the Connecticut companies from 135 million cubic feet a day down to 56 million cubic feet a day.

In so doing, they are trying to divide and conquer. There are other partners in this project: New York is desperately in need of gas, and that gas needs to be served to New York by back feeding it through Long Island to the New York facilities' system. New Jersey, as we know, is also interested in gas coming in from Canada over the Iroquois system.

We have tried to work with Tennessee for a number of years. Mr. Lieberman today mentioned the fact that we were going to contract for eight million cubic feet today over the NOREX system. Senator, that supply we had expected to be delivered to us last November. It was under another project that Tennessee withdrew, and now we have contracted for that volume under the NOREX system. That is another two years that we are going to have to wait for that gas supply.

Is it any wonder that out of frustration we have gone the route of the Iroquois pipeline because we have not seen the existing pipelines meet the requirements existing today in our service area. It is for that reason that we did join with the other Connecticut companies and the New York and New Jersey companies to be an investor in this pipeline. We are very happy to talk to Tennessee about any real proposal, but by offering only a portion of the Canadian gas which has been contracted for, it just destroys any other alternatives such as an Iroquois pipeline because the remaining gas will not be able to be delivered over a pipeline that is now only going to move a portion of that gas into New York and into New Jersey.

They talk about this alternative as being less costly. We have some concerns about some of the numbers that they are using. First of all, they do not apparently know whether there is any increase in the facilities in Canada necessary to bring the gas that they are talking about to the Niagara interchange point with the United States. We have some concerns about upgrading laterals within Connecticut to move this gas and Mr. Ashton will probably want to dwell on that in more detail.

A lot of the points that I was going to make my testimony have been covered; you are well aware of them. We in the State of Connecticut hold a very minor position with respect to energy supply, only about 12 to 17 percent depending upon whether you take oil into account that goes into boilers.

Nationally that is about a 25 percent figure. We are about 68 percent dependent upon oil, and as we all know, the estimate is that we will be 50 percent dependent upon foreign oil in this country probably by the year 1990 if not before.

The market for natural gas was touched on by Tennessee and it is an interesting comment that they made that they really did not see the future demand for gas offsetting number six oil because of price. And yet, an affiliate of Tennessee, TENGASCO, has invested approximately $3 million into the United Illuminating Company's New Haven Harbor station for the very purpose of transporting gas through the interstate system and through our system to be burned in that boiler.

The Iroquois gas that we will be taking delivery of will enable us to sell additional amounts of gas to that boiler, and that gas was sold at a savings to its rate payers. It is at 93 percent of the equivalent price of number 6 oil. So there are savings both to the electric side and there certainly is a business opportunity and I will be the last one to say that there are not as far as the gas business is concerned.

But as we grow in Connecticut and serve the economic development of Connecticut which is taking place in our service area, I think that has got to be of value to all of our customers. Incidentally, our customers are in New Haven and in Bridgeport. Bridgeport being the largest city in the state.

I will not take any more time because I would like my colleagues to make their presentations. I would be happy to get into any one of these points at your pleasure, Senator, and I thank you for allowing us to speak.

[The prepared statement of Mr. Larson follows:]

THE SOUTHERN CONNECTICUT GAS COMPANY
A CONNECTICUT ENERGY COMPANY

JOHN H. LARSON
President and
Chief Executive Officer

REMARKS OF

JOHN H. LARSON

PRESIDENT AND CHIEF EXECUTIVE OFFICER

THE SOUTHERN CONNECTICUT GAS COMPANY

BEFORE THE SENATE ENERGY & NATURAL RESOURCES COMMITTEE
SUBCOMMITTEE ON ENERGY REGULATION AND CONSERVATION

JULY 20, 1987

NEWTOWN, CT.

880 Broad St. • P.O. Box 1540 • Bridgeport, Conn 06601 • (203) 382-8101 • 55 Church St • New Haven, Conn 06510 • (203) 786-6111

My name is John Larson and I am president and chief executive officer of The Southern Connecticut Gas Company, one of the partners in the Iroquois Gas Transmission System project.

Our state's three natural gas distribution companies -- Southern Connecticut Gas Company, Connecticut Light and Power and Connecticut Natural Gas Corporation provide natural gas energy to approximately 450,000 Connecticut homes, businesses and industries.

Southern currently serves approximately 140,000 customers in 22 communities, primarily along the Connecticut shoreline. Our company's customer base has expanded each year since 1977. Last year, we added 3,000 new customers to this base. We fully expect this trend to continue.

Not only is Southern's service area growing, so are those of CL&P and Connecticut Natural Gas. In fact, natural gas sales for the period 1976 to 1985 increased 20.1% (DPUC Docket No. 86-10-13). As chartered natural gas distribution companies, we have a responsibility to meet the long-term energy requirements of our current customers and have sufficient capacity to satisfy future demand.

Since the Iroquois project was introduced, there has been a great deal of discussion about the issue of need and the environmental impact of the pipeline. I want to specifically address the issue of need.

On June 5, 1987, the Connecticut Department of Public Utility Control (DPUC) issued a draft decision regarding the state's gas utilities demand and supply forecasts.

The Authority concluded that "demand (in the state) for natural gas will increase". In fact, the DPUC further concluded that Connecticut gas distribution companies will have a need for additional natural gas deliveries to satisfy growing demand in the area.

Without additional gas capacity, Connecticut gas utilities will have to expand their propane facilities or build new propane plants. The cost of the facilities, and the cost of using more expensive propane, will further increase the price of energy in Connecticut and still limit our ability to meet increasing demand in the area.

The availability of increased natural gas supplies, whether domestic or Canadian, will not help Connecticut unless there is a way to get the gas into the state. Currently, two natural gas pipelines serve our state — the Texas Eastern Transmission System and the Tennessee Gas Pipeline Company.

We repeatedly have requested that these suppliers expand capacity in Connecticut. In the past, both have sponsored projects which have added very small amounts of additonal supply and capacity. For the most part, however, they have been unable, or unwilling, to make a significant commitment to Connecticut. Neither has come forward with an alternative transportation proposal to meet the requirements that Connecticut will meet with ANE/IGTS gas.

We believe the Iroquois Gas Transmission System project will provide a third source of pipeline gas, and a third competitor to enhance pricing competition. Increased pricing competition is critically important because energy prices in our state are among the nation's highest.

(1) If our state is to continue to meet projected economic growth patterns, new supplies of competitively-priced energy are needed not only to meet existing commitments, but also to meet the requirements of emerging new uses of gas energy, such as cogeneration and chiller-heater facilities.

(2) Of the approximately 450,000 gas customers in the state, about 390,000 are residential (and that does not count each family member). Heating customers, particularly the poor, the working poor and the elderly who live on fixed incomes will get some long-term price relief.

The remainder represents commercial, business and industrial concerns. Many of these employ hundreds, some thousands, of workers. All categories will benefit from more competitive energy prices. More competitive energy prices will increase the competitiveness of goods and services produced here, and that impacts on employment opportunities.

Iroquois also will achieve several major components called for in Connecticut State Energy Policy (as established by statute C.G.S. 16a-35k), as follows:

(1) Diversification of the state's energy mix.
Natural gas currently holds a 12 percent share of the Connecticut energy market, compared to about 25% nationally. Significant new gas supplies, such as those to be delivered by Iroquois, will bring Connecticut more on line with the nation in terms of a more balanced energy mix.

(2) Replacement of energy resources vulnerable to interruption due to circumstances beyond the state's control with those less vulnerable; and, maintain planning and preparedness capabilities necessary to deal effectively with future energy supply disruptions.

Construction of the Iroquois pipeline will provide an additional means to bring more gas to Connecticut and help protect against the devastating effects of another OPEC oil embargo.

(3) To assist citizens and businesses to implement measures to reduce energy costs and consumption. Iroquois gas will provide a lower-cost alternative to more expensive supplemental gas supplies currently required during peak use periods; Iroquois will provide a third source of competition among pipelines serving Connecticut, which will help hold down costs to consumers. The availability of additional gas supplies also will allow for the development of more efficient energy installations, such as cogeneration facilities.

In summation, we believe Iroquois is absolutely essential to the future prosperity of Connecticut and the achievement of a sound and balanced energy policy.

STATEMENT OF VICTOR FRAUENHOFER, CONNECTICUT NATURAL GAS CORP.

Mr. **Frauenhofer**. My name is Victor Frauenhofer, and I am president and chief executive officer of Connecticut Natural Gas Corporation.

As John said, I would like to thank you for this opportunity to present testimony today on why CNG believes the Iroquois pipeline is necessary to meet the future needs of CNG and its customers.

Connecticut Natural Gas currently serves approximately 135,000 customers in 21 communities in the greater Hartford/ New Britain area in Greenwich, Connecticut. CNG customer base has increased each year since 1972, and is expected to grow steadily at a 2 or 3 percent rate over the next ten years. CNG is a 4 percent equity partner in the Iroquois project, and has reserved 50 million cubic feet of natural gas a day from the pipeline. In 1992 this will be approximately 20 percent of our total required load.

I will comment on the Tennessee proposal a little later.

CNG is fortunate to provide service in a thriving segment of our state. The Iroquois pipeline will provide additional energy to meet the needs of residential, commercial and industrial markets in the capital region and in Greenwich. To meet this growth, additional supplies of cost-competitive natural gas are needed. In CNG's service area during 1986, the number of newly constructed dwelling units connected to CNG gas lines were up 19 percent over 1985.

In addition, despite the keen price competition between natural gas and oil, the number of oil-to-gas heating conversions of single and multi-family homes was up 11 percent. These statistics are clear evidence of the growth being experienced and the reasons why CNG believes the Iroquois system is needed to meet future demand.

There has been considerable debate about the needs for the pipeline. Let me assure you that CNG decided to join with the other Iroquois partners in the building of a new pipeline after many years of repeated attempts by our company and others to secure additional supplies for our region from two pipelines which currently serve the Northeast. Some small amounts of natural gas had been made available to our company through the current pipeline systems, but not enough to meet the long-term needs of our present and future customers.

I would like to take just a few minutes to talk about the process which has taken place since the Iroquois project was announced. As Bob Reid has indicated, many regulatory bodies at the state, federal and Canadian government levels are reviewing the Iroquois proposal. The key issues of need and environmental impact are important components of each agency's process. We believe that elected officials, the general public and all interested parties have numerous opportunities to examine and comment on every aspect of our pipeline proposal. As partners, we have encouraged such comments. At the federal level, the Federal Energy Regulatory Commission, as the lead agency, is charged with the preparation of an environmental impact statement under the terms of the National Environmental Protection Act.

In October of last year, the Iroquois project filed an extensive environmental report as part of this process. A draft environmental impact statement is expected from FERC. A full public review process will follow the readings of the draft environmental impact statement.

In December of 1986, Iroquois filed for an environmental permit in New York under the Article 7 procedures where need is a primary issue. Evidentiary hearings began in New York in early June and are continuing. The Connecticut companies filed extensive documentation with the Connecticut Department of Public Utility Control as part of a docket which focused on our company's forecast of supply and demand. A draft decision has been issued on that docket, but a final decision is due out shortly.

What I would like to do is to take one quote from that draft decision which basically says "Connecticut is supported by only two interstate pipelines, both of which are at full capacity in the winter." Therefore, the application of Connecticut LDC's are limited. Gas consumed in Connecticut is largely for priority uses to customers with limited or no options for alternative energy supplies. This is particularly so in the winter. In addition, the Canadian National Energy Board has approved the Iroquois applications to export the gas into this country for the Iroquois system. Their decision was based on the substantial market for the gas demonstrated by the Iroquois participants during evidentiary hearings in Canada. Despite all of these reviews, it was clear to the Iroquois participants that questions on the need for the pipeline remain.

In May, the participants proposed that the Federal Economic Regulatory Administration and FERC conduct hearings in Connecticut. All of these hearings would focus on the need for Canadian gas in connection with their review of import authorizations. The FERC would examine the need for the Iroquois pipeline as part of its comprehensive environmental review.

While no hearings have been scheduled by either agency to date, we continue to believe that these hearings will provide answers to the key questions surrounding the Iroquois proposal.

In conclusion, let me reiterate that CNG believes in the need of the Iroquois pipeline. In the state which continues to grow steadily, we need additional and diversified energy sources to meet our future needs. We need energy at prices that will not depress economic development, and we need a means to deliver it. Iroquois provides all three. It also provides what the OPM office stated in their report, that we need a better energy mix in the state of Connecticut.

While oil prices continue to rise, the Iroquois pipeline offers an alternative to oil and holds a promise of giving our region a chance to control its own energy destiny. In connection with the remarks by Tennessee, apparently we would receive an additional 12 percent increase in our supply as compared to 20 percent by the Iroquois pipeline, and that 12 percent was predicated on serving two co-generation projects. Serving those two co-generation projects would leave us with zero additional gas for our regular firm customer needs. That concludes by testimony.

Senator **Weicker**. Thank you very much.

Mr. Ashton.

STATEMENT OF PHILLIP T. ASHTON, SENIOR VICE PRESIDENT AND GENERAL MANAGER, NORTHEAST UTILITIES

Mr. ASHTON. Good morning, Senator. My name is Phillip T. Ashton. I am senior vice president and general manager for the gas group of Northeast Utilities and the Connecticut Light and Power Company.

I have submitted for the record six pages of prepared remarks. I am going to marginally pass over that and try to address some of the issues that unfold this morning.

First of all, the issue of need has been one that has been flawed. I think your very perceptive comment that energy needs of the state should not be guided by politics certainly comes home to roost there. The record is replete with numerous instances of state agencies taking positions that the state should get off oil and use more natural gas, encouraging the use of natural gas. Interestingly, one of Mr. Horace Browns' own departments this past January put out a document on the biennial report to the Governor and Legislature on energy and on page 14 of that there are two paragraphs which I would like to read. I think it very succinctly puts this into a perspective:

> The Connecticut gas market is generally considered to be unsaturated, or having unmet potential for growth. Such growth could take the form of additional customers on existing lines, extensions of lines to serve new users of gas, co-generation and conventional electric generation.
>
> The present constraint on growth in the Connecticut market is supply; although there is an excess deliverability of natural gas nationally, the two pipelines serving the state are at capacity, and the market is not expected to grow substantially until additional sources of supply are secured,

Now, that simple fact has been bedeviling the whole understanding of this issue of need. Mr. Kumins falls headlong into that pit; he simply does not understand that in a constrained market, growth is not free to occur as it would otherwise do. We have prepared and finally had copied today, a response to Mr. Kumins's memorandum dated April 10, which I will submit for the record.

The response points out a number of the significant errors upon which Mr. Kumins was trapped into in forming his judgment. Those errors are compounded by the fact that he made no attempt whatsoever to discuss the aspects of need with any of the three principal utilities in the State. Nor to my best belief and understanding, did he do so with the Office of Policy and Management, which is one of the government agencies you encouraged to be involved, nor did he with the Department of Public Utility Control.

His understanding of the situation perhaps can be best characterized by his own statement: "Only one management audit was ever made of a Connecticut gas and utility." That is simply factually incorrect. The Connecticut Light and Power Company alone has had two of them. I know Southern Connecticut has had one and I know Connecticut Natural Gas has had at least one, possibly two. This is the level of understanding that we have to deal with.

I would add that the level of forecasting capability in the State is very high. This is not a back of the envelope or hold your finger up in the air if you wet it to see which way the wind is blowing. In the cast of Northeast Utilities, our forecasting methodology has been worked out for many years and is used in the electric forecast which are reviewed annually by the Connecticut sitting council and have been for well over ten years.

That same methodology, which is considered to be state of the art, is the methodology which applies in our gas forecasting.

Mr. Kumins really got into the alternative issue. I think the State's own report, the one they have sponsored which we think is so absolutely dreadful, the QED report, perhaps puts that in its best perspective. We have characterized the then existent Tennessee alternative as something that exists only on paper. If my memory serves me, it exists on six pages and there were factual errors from one page to another.

We received a visit from Tennessee this Wednesday, and as you have heard, they put out another offer to us, an offer too good to be true. We did respond. I responded on July 17, last Friday by letter to the vice president of Tennessee who was in charge of the delegation. I will be pleased to put those letters into the record which will give you some perspective of the problems we see with this proposal. For example, Mr. Larson, I believe, mentioned that they ignore the cost of the Canadian facilities which we believe are very substantial. They also contain a proposal to construct an 11½ mile lateral to New Haven and have a price of that lateral, including new right-of-way, of $577,000. Iroquois, for the lateral which the HVA has so graciously put in as about a 40-lane highway, comes out at $714,000 a mile for also new right-of-way, a smaller diameter pipe.

Now, I would argue as a professional engineer, that one or the other is wrong. You cannot have a larger diameter pipe costing less on new right-of-way in a higher cost real estate area than that one.

That is just a small sample of the many areas that we think have to get resolved.

There also has been a lot of need and I have prepared a packet which I will also offer to you, which is an attempt to extract from these various sources, documentation pertaining to need. It goes back for many years. It was claimed that there was a recent change in route. That recent change is not so; it was changed last October when the full environmental report was filed for Iroquois. There have been a number of statements, which I think would have to fall into the area of hyperbole as to the environmental havoc. I personally received a letter from somebody in Litchfield County which decried the "wholesale destruction of Litchfield County" that the pipeline would invite. I think that that is not reasonable.

I would like to just show you as a small statement of the environmental effects, two photographs. These are taken in the town of Shelton, one where the Mayor so desperately worried about the irrevocable damage to wetlands, wildlife and all the rest of it. This is a 75 foot wide right-of-way. The photograph is taken looking east to the Housatonic River. You can see the nature of the right-of-way. The only evidence that exists that there is a pipeline upon it is a very small white line which is a vent pipe where the pipeline crosses a road.

This is another photograph. These both were taken about the end of October or very early November last year, taken in the same general area. I find it hard to equate those or any other pipeline rights-of-way with being the wholesale destruction of any county.

Pipelines exist harmoniously in our society of Connecticut very well. There are approximately 500 miles of such pipelines traversing the State; they have been here since 1952. Most people do not even know where they are because there is no evidence on the surface. They exist in woodlots such as this; they exist under lawns, under gardens, under farmer's fields, under parking lots and you name it. The only prohibition that a pipeline requires or poses on the land is that there be no structures erected directly over it. Other than that, you are pretty well free to use the land for what you wish.

Misconceptions abound. I had one at a hearing before the legislature this past February or March. Two people came up to me and said "How much above ground will this pipeline run?" on the assumption that it was going to be overhead like an electric line. Some even believe that once we file the application, eminent domain becomes available, or that eminent domain equates to something other than fair market value. The whole purpose of eminent domain is to assure on the public record that fair market value is observed.

We hear stories about PCB's, the record will show that there have been borings taken at the potential crossings and no PCB's were found. There is tremendous concern about blasting and all the rest of it; this is a trench, this is not a bore hole that is going down miles.

And then finally to the Tennessee proposal. I think that Mr. Ramsey said there was an offer made which would cause gas customers to save over $100 million, but he certainly did not provide any, he did not mention any figure when we met with him, nor have I seen any evidence whatsoever to indicate that there is a dollar saving on this thing.

He indicated that they are one of the first pipelines to offer open access, but you have to understand that access is constrained by firm contracts. It is only available on a when, as, and if available basis. It is worth pointing out that past promises of Tennessee to deliver large volumes of gas from the consolidated system in West Virginia area. We were repeatedly promised that; we express interest in it; that gas was sold to Cincinnati Gas and Electric. A number of the contract provisions that Tennessee has offered to enter into with us have been unreasonable and the FERC, as a matter of fact, in approving Boundary phase II last Wednesday, threw out a number of the provisions that Tennessee was espousing.

So, it is one thing to say there is an alternative and the alternative we saw last Wednesday only exists on a few sheets of paper. There is no approvals within the Tennessee organization; there is no application to FERC. We will be chasing cows jumping over the moon for years if we pursue things of that nature.

Iroquois is here today; it is substantive. And we think it is a valid project and a valuable project to the State.

Thank you.

Senator **Weicker**. The Iroquois filed for a pipeline certificate pursuant to Federal Energy Regulatory Commission's so-called optional expedited certificate procedure. In order to qualify for processing under the OEC procedure, the Commission's regulations require that the applicant bear all of the risk associated with the project. In other words, the applicant must not have the potential to pass on to its customers any of the economic loss in the event the project fails partially or completely.

Can you guarantee to the Committee that the State Utility Commission would not pass on to your customers any of the costs associated with the Iroquois project in the event the project is not a success?

Mr. **Ashton**. I think that each of us should answer that from our own perspectives, but clearly the Department of Public Utility Control today sits in judgment on us and can, on its own initiative, call us in for an accounting of the prudency under which we acquire gas. Whether or not they will allow any costs or what costs they will allow, we do not know at this time. Even if it is the best deal in the world, conceivably they could find some reason to deny those costs.

The whole mechanism under which the application is made is such that the return on equity and the return of equity is at risk for the applicant. And that in itself speaks for the fact that this is not the kind of sure-fire deal that Tennessee would like us to go into.

Mr. **Larson**. Let me just add one thing to that. I think it is important to keep in mind that the return on and of equity as at risk. That risk is a shareholder risk of each one of these companies. The investment in Iroquois will be a non-utility, not in rates at all kind of investment. So, it is completely at risk with respect to the pipeline's succeeding.

Mr. **Frauenhofer**. That is correct.

Senator **Weicker**. I think the content of the hearing is such that a lot of questions have clearly been raised, questions that I think the people of the State deserve an answer to for risking their property. I have to, out of fairness to you gentlemen, ask myself, did you come up with this project as a matter of need or did you come up with this project as a matter of frustration in dealing with you present gas suppliers and as a matter of investment opportunity.

I have to ask my question, where is the DPUC. We see an advance report, but we are told that really does not mean very much. You cited other statements by state agencies; one of yours did, I believe.

Mr. **Frauenhofer**. OPM.

Senator **Weicker**. That indicates the need for additional gas. Yet that very person is up here saying, you know, this really is not the answer. Then when the environmental concerns are raised, and I do not blame the average person for being scared, I would be scared too, about a pipeline coming through my property, where is the Department of Environmental Protection as far as this involvement is concerned. I obviously have to question Tennessee Gas Transmission as to why this belated proposal on their part.

I tell you what it all does add up to, though. I do not think we need any expedited procedures. I think we need a very careful look at this to make sure that we are stepping correctly on each point that is raised. Don't you think that it might not be in your eventual interests under these circumstances to abandon any application for expedited procedures?

Mr. **Ashton**. Excuse me.

Senator **Weicker**. This is your State, you obviously represent people, not just on this proposed pipeline route but you have customers all over the State. You have an image in the State, you know the State. I think much of the concern here that has being raised is relative to having this thing ramrodded through.

Mr. **Larson**. Senator, we have no objection to this project being looked at on its merits. What we are afraid of under the traditional 7C form of applying to FERC is that every other company can come in and put in a proposal, whether they are serious about it or not. Each one of those proposals has to be looked at. As we have heard earlier today, the boundary situation was something like seven years to just get now what would be 90 million cubic feet a day, and that is down from, I think, from three times that volume initially.

If we could get the promise that we were going to get an expedited—I should not use that word and I apologize—a timely review of this project, its need and its environment, this is what we are really looking for and not have somebody come in and say, that is okay, they have given that information but I can come in and do it another way. Then it takes another year or so, and you know the way lawyers can get in to these things and drag the hearings out.

The longer these things are dragged out, the more risk we have as far as our ability to meet the demand in Connecticut and in fact, the more expensive it gets as we can see by looking at any nuclear power plant project that is under construction now or waiting to come on line.

Delay means a great deal of money, and that money is going to be collected sometime from somebody. Seabrook is running at $50 million a month, just carrying charges at this plant.

Mr. **Ashton**. I think that your point is a fair one, but I think it needs a little perspective.

The project was first made public 18 months ago. The application was filed in May, 1986, which is 14 months ago. A significant amount of time has already passed and there has not been any single substantive action taken or procedural matter decided. I will even include the FERC decision last week. There is an interesting contrast to be made with Connecticut's own law, where the Connecticut siting council, which would look at such matters as power generating stations, electric transmission lines, substations, telecommunication facilities and was disposal sites, has, by law, a total, including two months of grace, of twelve months from the time of application to render a decision.

So, while we are using the term "expedited," it sure ain't worked out that way so far. As Mr. Larson said, what we fear and what the record shows will happen, is that you get into an interminable almost argument over trivia and side issues posed by anybody who feels like torpedoing the project.

Senator **Weicker**. Gentlemen, I thank you for your testimony. Any materials you would care to present for inclusion into the record, will be accepted.

I would like to move along because we have quite a few people who have indicated they want to testify. I have got to bring things to a conclusion here in about 20 to 25 minutes.

The group of Mr. Richard Cody of the town of New Milford, Mae Schmidle, the state representative from Newtown, Sean Butterly, state representative from 68th and Alice Meyers, state representative from 135th, why don't you all come right up here and we can begin with the four of you. I would appreciate it if each individual would limit their remarks to two to three minutes and then any statement they care to go ahead and present will be included in the record.

Why don't you lead off.

STATEMENT OF MAE SCHMIDLE, STATE REPRESENTATIVE, NEWTOWN, CT

Ms. SCHMIDLE. Thank you very much. We welcome the Senator to Newtown; it is nice to have you here and it is nice to have you asking these serious and very perceptive questions about what is a real problem for us here.

As representative of the 106th District, I am opposed to the fast-track operation. We cannot understand for the lives of us how suddenly we moved from alternate one to alternate seven and there never was any explanation. The only thing we can think is, the squeaky wheel. You know, that there was a lot of noise made in a particular section of the State so then they back off and they hit another section of the State.

I think that is a totally unfair way to locate a pipeline. If in fact you are going to change the route, I think the people need an explanation as to why you are going to change the particular route. As far as Newtown is concerned, I think that we have the most serious problems in the State, perhaps along the whole pipeline, and I think that we are more severely and seriously impacted than any other town.

Ten percent of the entire pipeline goes through the one town of Newtown alone. Almost 11 miles of pipeline will go through our one little town. That is something that we all have to be very, very concerned about.

I understand the whole principle of free enterprise; I understand the principle of free enterprise. But I think this is a totally, totally different situation where you will condemn private property in order to further your own free enterprise. That is what makes it so different.

In other public hearings we have had very, very adverse testimony on what happens with a condemnation process. In some places along pipelines people told us that their property was condemned and liens were put on their property and they never even knew about it until they went to sell their property. I think all of those kinds of things have to be explained to the people before you set a route. They have to know exactly what is going to happen to their particular property.

I question if in fact this is a justified cause, and I am not sure it is, no one has proved it to us and you have had lots of testimony in that direction. We already have existing pipelines in Newtown, by the way. We will have another pipeline that is going to go chopping and criss-crossing through town, and Newtown's going to look like one of those video games where you have all these little things running all over town. That certainly is not in the best interest of the State, of the pipeline or of the people.

So, I am unalterably opposed to the fast track. I think it does not give the public, it does not give the people, it does not give the State or local communities to adequately address the problems that might be incumbent upon their communities. We have to look at the economic problems. We have to look at the social problems and the environmental problems and do not forget, Newtown has the largest single aquifer located in this State right in the middle of the town, and this pipeline is going to go through that, around that, under that or what have you.

Most importantly, I think we have human problems that we have to consider, and the problems of the public. With your indulgence for another minute, I would like to read the statement from Jack Rosenthal, our first selectman.

He says—

> Dear Senator Weicker, I oppose bringing the pipeline through Connecticut and particularly Newtown for the following reasons: One, the need for the pipeline has not been established according to a report submitted by Congressman Rowland by the Congressional Research Service; two, an environmental impact study has not been done to determine the effects on the environment and ecology; three, the aquifer that supplies potable water to most of the homes in Newtown would be in the path of the route of the pipeline, and a break in the line could do irreparable damage to water; and four, there would be an adverse financial and emotional effect on the owners of the property that would have to be taken because their property is in the path of this pipeline.
>
> Sincerely yours, Jack Rosenthal.

Thank you.

Senator **Weicker**. Alice.

STATEMENT OF ALICE MEYERS, STATE REPRESENTATIVE, NEWTOWN, CT

Ms. **Meyers**. Thank you very much, Senator. I certainly appreciate your coming to the State of Connecticut to allow us to speak to you.

I would like to speak not only as someone who represents a third of the town of Newtown, but also as someone who has been involved since 1976 in the State legislature with the Planning and Development Committee, which committee has cognizance over economic development. Not only economic development, but also, our statewide plan of conservation and development. We have been very, very concerned on the State level to try to balance economic needs, environmental needs, safety needs, protecting the rights of people's private property.

In all that time, I must say that I have not, in talking with the business community, especially the small business community, while all of them say the high cost of energy is one of their problems in the State of Connecticut, it does not ever seem to come out as one of the top problems that we have tried to address. I have not heard from the Department of Public Utility Control, as you so well stated before, Senator, that we have an emergency in the

State of Connecticut and therefore, need to take emergency steps to solve it.

Therefore, my main plea today is that we need your help; we need the help of all the other members of our congressional delegation because this is not a simple local issue; it is a statewide issue because what is happening in this particular area today can be happening in another part of the State tomorrow. I say to you and all the other members of our delegation, please help us to derail this expedited procedure. Give us a chance to work between the environmental groups, our individual citizens, our businesses in this State, with people concerned with the safety of all our citizens. Let us do it in a long-range planning type of atmosphere.

My big plea today is let us get off the fast track. Thank you very much.

Senator **Weicker**. Sean.

STATEMENT OF SEAN BUTTERLY, STATE REPRESENTATIVE, WOODBURY, CT

Mr. **Butterly**. Thank you, Senator. I am the state representative of Woodbury and most of Watertown and again, I would like to express my opposition to the proposal of this gas pipeline. I renew this opposition despite the fact, Senator, that you have seen a somewhat new route, although I know the gas people have sort of controverted that this morning. It is a different identified primary route, and it would not touch on a lot of my district, but I want to state as I stated last fall, we who oppose it in Litchfield County do not want to take the approach "as long as it is not in my backyard this pipeline is a good idea."

In fact, as a member of the General Assembly, I, representative Herskowitz and other members that are here, including Newtown's Mae Schmidle, spearheaded a resolution against the Iroquois pipeline as proposed, and we did it basically on the basis that the environmental impact was such that that by far outweighed any scant evidence of need that had been shown to date. In fact, bipartisan findings including those of Congressman Rowland, Congresswoman Johnson and Governor Neill's commission study by the QED have shown that there is that scant display at this point in time of such a need.

I know you have heard many technical arguments this morning from the Northern Valley Environmental Coalition, from the Housatonic Valley Association. I would just like to state that I was in the meeting in October when you so graciously appeared as did many others in Torrington. I felt that the argument that you made against the pipeline at that time, or at least against any quick expedited construction of one, was a good one. If you will recall, you stated that you had driven over the proposed area in a helicopter and, observing the beautiful landscape and having the chance to do it along with Margaret Hesse, you turned to Ms. Hesse and said, Mrs. Hesse, Connecticut rests its case.

As an attorney, I could not think of a better closing argument against the pipeline as proposed, and again, I would just like to thank you for your attendance here today. I know from your line of questioning, you are observing what is going on, and I am sure that you will help all you can on the federal level. Anything we can do here on the state level—I see Mr. Casey's out here too—we would certainly like to lend you that support. Thank you.

Senator **Weicker**. Thank you very much, Sean.

STATEMENT OF RICHARD CODY, FIRST SELECTMAN, NEW MILFORD, CT

Mr. **Cody**. Senator, thank you. I am here on behalf of the First Selectmen of New Milford. I do not have any prepared remarks because I was not quite sure I would be given an opportunity to address. I thank you for that.

Senator **Weicker**. Better pull the microphone up to you.

Mr. **Cody**. The town of New Milford, like Ken Heller says of Brookfield, is in the unfortunate position because it has not one, not two, but three proposed lines going through, alternate 7 and alternate 7a. The Board is very concerned about the impact this trailblazing will have on the quality of this local environment. The proposal will initially affect more than 210 acres of land, and permanently encumber more than 140 acres. As currently drawn, it traverses near Candlewood Lake and runs close by the town's commercial artery.

The board of first selectmen feel alternatives have to be considered. Not only the alternatives shown by your Iroquois but others as well. The substantial market Iroquois says exists is located primarily in New York. One question was why doesn't this run through New York instead of Connecticut.

The question of the appropriateness of 436 in this proposal in draft, I would just like to go on record as saying the board feels it is inappropriate to this proposal and the board does want evidentiary hearing on the question.

My last remark was prompted by something Carol Herskowitz said when she was up here, and that is that Iroquois Gas Transmission System representative came out with the remark that the opposition has gone into the wall. I guess if that is a true statement by Iroquois, it is misleading and quite ludicrous. Until about a month and a half ago, the proposed route was this black one and this was the black line beforehand. Obviously he changed the route. The opposition is going to shift and there is going to be a row.

The Board of Selectmen decided last week to take all leg[illegible] political measures available to it to protect the rights of its citizens and its property owners. I can assure you and I would like to reassure the Iroquois Gas Transmission System that the opposition mounting in this small community will resound loud in further proceedings. Each step Iroquois takes in procedure will be closely followed. Experts are being consulted and reviewed. At the public hearings, Iroquois can expect us to have expert evidence presented by the town and expect vigorous cross-examination of its witnesses. It will drag out the procedure so long as it needs the protect the interests of this community.

The Board is opposed to this thing.

Senator Weicker. Thank you very much. I thank all these witnesses for their statements. They will all be included in the record and they will all be coming to the attention of the FERC.

The last group of persons—and if you would all just come up here and share the mikes—are Anne Marie Muesa, chairman of the GASP Coalition, Janet Bates, Lake Waramaug Task Force, Broderick MacKenzie of Newtown, Eugene Garriery of Newtown, Jim Perkins of New Milford, William Pawlowski of Shelton and Dave Petty.

That is all right. Why don't you just leave those chairs in front of the microphones and let each person make a brief statement and we will be all set. The best thing is to just identify yourself into the microphone and if you would please, keep your statement to a couple of minutes. It is nice to have you here; I am glad you stayed through the whole performance. We are delighted to hear from you. Why don't we start right off here.

STATEMENT OF ANNE MARIE MUESA, CHAIRMAN, GASP COALITION

Ms. Muesa. I am Ann Marie Muesa. I am the Chairman of the GASP Coalition which is an association of citizen's groups in New York State from the Canadian border to Long Island in opposition to Iroquois. Most of our groups are in Columbia and Dutchess Counties, but we do have members along the entire route.

I have had written testimony for you so I will not take time with that, but I think one of our major concerns is the use of expedited procedures at the federal level. In New York, however, we are now in the midst of evidentiary proceedings, the article 7 application of Iroquois and are dealing with the issue of need.

We have cross-examined expert witnesses from the individual shippers in New York State regarding this. We are trying to consider the entire issue of need for the project. The applicant has, however, declined to let us examine so far the need in Connecticut and New Jersey, although this need would be more than 60 percent of the proposed volume and New York State would be called upon to bear approximately 80 percent of the burden of the facility in terms of environmental impact. There are very serious questions about the issue of need; we are trying to address them in New York, and we would like them addressed in Washington, and we thank you for your help.

Thank you.

Senator Weicker. Thank you and welcome to the State of Connecticut. It is nice to have you.

STATEMENT OF JANET BATES, CHAIRMAN, LAKE WARAMAUG TASK FORCE

Ms. Bates. Senator, I am Janet Bates. I am Chairman of the Lake Waramaug Task Force. I thank you for letting us take part in this democratic process. It is a very important process.

Twelve years ago we started in our community to save the second largest lake in this state. We then knew that all lakes needed help. We now are doing research for all lakes in the entire United States, and have been recognized for this work, and you have backed us in this as we have gone along. A year ago we had to start on a whole new tactic. This thing just appeared. I think we are a microcosm of the whole problem.

Warren is a small, populated town; however, it is large mileagewise. We have 27 square miles. The pipeline preferred route and their first alternate route transfers the town of Warren from one end to the other, no matter where they went, over five and a half miles of the pipeline were in the watershed of Lake Waramaug.

It is impossible, when you are told that the route can vary in any direction, to designate the true environmental impact that will take place; however, the burden has fallen upon all of us in all these towns and in the rest of the State that care about it. I think this is a national problem. I do not see it as a strictly state problem. I urge you and the people in Congress to get ahold of this order and straighten it out. You have seen here today what we have been dealing with from the very beginning.

Iroquois says they do want fast track; they say they will not abandon fast track; they say that they are not going to go on the preferred route; they will not abandon the preferred route. You get conflicting evidence from everything that they say. We are normal people. We pay our taxes, and are good Americans. We vote, do the rest of it, and we are constantly on the defensive to protect what should be protected by the government of the United States. I feel very strongly that this is defended on an environmental basis, and that really and truly it is deeper than that. It is an American privilege to be here, but it is not in our power to prevent these things form happening anywhere. I hope that Congress takes recognizance of this fact and really understands what is at the bottom of this whole problem.

Senator **Weicker**. Thank you.

STATEMENT OF LILLIAN PAWLOWSKI, SHELTON, CT

Ms. **Pawlowski**. My name is Lillian Pawlowski and I come from Shelton and I am here on behalf of my brother today. My brother is Rudy Hudak and he owns a farm, a substantial amount of which this pipeline is going through. He has 170 acres. Beautiful land. Only 15 years ago we were fighting to oppose the power lines form going through and this almost looks like a constant repetition. What group wants us next?

Connecticut is trying to protect their farmland; Shelton has probably three, at the most, working farms and we constantly have groups going through trying to break up that farm. It is hard enough to farm as it is, from five in the morning to golly knows what hour at night because my son happens to work at the farm too and he leaves at quarter after five every morning. He is lucky he comes home at nine o'clock. You are constantly fighting this battle which you really should not have to be doing to retain this land.

We would like to know how you propose to keep the cows and other animals out of the area? We have rented land for many years where there is a power line going through. There are gates at each end. I guess the gas line will do the same thing; I do not know. The problem is, you always have three wheelers going through, you have horses going through, you have whatever going through.

Those lovely pictures they put up are fine. They came from Shelton, but I can show you places in Shelton where it is not as lovely as those areas that they show. It is one thing to work hard all day, but the cows do not get out at noontime. The cows do not get out at five o'clock in the afternoon. The cows get out at two o'clock in the morning because someone has gone through and left the gates open. It is not the pipeline people, it is not the power people that go through, it is other people that go through. That could be verified because our cows have been out on Route 108 in Shelton for many years because of people going through.

We are concerned about the land being put back together. I do not buy that they are going to put it back. If you even dig up your septic tank in the backyard and you take the top dirt out, and put it back, it does not go back the same way, it never looks exactly the same way, and I do not buy that they are going to put it back the same way. Not when you are dealing with a humongous area that you are working in. I do not buy that.

As it crosses my brother's land, it also goes within a quarter of a mile of the Sawmill Reservoir. This is a reservoir that feeds into the Bridgeport Hydraulic System and as it crosses through this land, it also feeds into the brooks that feed into the Sawmill Reservoir.

I am also a mother and a mother of a volunteer fireman. I am concerned. Now, when these fires burn, they simply close off the valves and let it burn, is that the case? Do you know, sir?

Senator WEICKER. I am here to listen.

Ms. PAWLOWSKI. I do not know. I am concerned. He gives his name freely. He works on the farm all day, he fights fires, if he has to, at night. That is part of his concern, but you are really worried about this type of thing. But what is going to happen 20, 30, 40 years down the road? I do not know.

I say, prove your need. Use existing lines if you have to. I hope you are prepared to pay big bucks. The land selling next to my brother goes for $165,000 an acre. That is right now; next week it will probably change. The lots that Mr. Wells has down near the commercial zone I would say probably go for $400,000 an acre. I hope they are prepared. Nobody wants to answer questions about that. I hope they are prepared. Thank you for your time.

Senator WEICKER. Go ahead.

STATEMENT OF JIM PERKINS, NEW MILFORD, CT

Mr. PERKINS. My name is Jim Perkins. I am from New Milford and I am an interested citizen. The extent of my interest lies in large part because Alternative 7, as it is now proposed, passes through my house.

I would like to make just a couple of comments: One, I must ask the question, first of all, how is it that a company 50 percent owned by a foreign entity can have the privilege of eminent domain?

Second, the testimony that we have heard today from proponents of the gasline merely talked about Connecticut as market, and I resent Connecticut being seen solely as "market."

Thirdly, you raised the question of whether we were seeing free enterprise at work, and I would like to point out that we are not seeing free enterprise at work. It is the culture of a public utility to expand, to grow and to enlarge itself, for that reason alone. Another point, we have seen that the Iroquois Gas Transmission System, in juggling its various alternatives, is in the process of pitting rich versus poor, trying to find out which path crosses the property lines of those people least able to resist the process.

Finally, I would like to point out that the photographs that we saw here early, self-serving though they were, did not contain a single tree over ten years old.

Thank you, sir.

Senator **WEICKER**. Thank you very much.

STATEMENT OF EUGENE GARRIERY, CHAIRMAN, NEWTOWN OPPOSITION TO PIPELINE ENCROACHMENT, NEWTOWN, CT

Mr. **GARRIERY**. Thank you, Senator, for allowing us to be here. My name is Eugene Garriery. I am Chairman of the Newtown Opposition to Pipeline Encroachment, a local grass roots organization formed when the announcement of the proposed pipeline was made public. Like Jack Webb used to say, "We're just here for the facts, ma'am."

I guess you heard a lot of facts this morning here, some apparently contradictory. Some people have got a——

Senator **WEICKER**. I think we have all heard a lot of facts, but I think you are correct. A lot have been contradictory; a lot have been very waffling, in other words. A lot of material clearly establishes one fact and that is that we are not in a position for any decisions to be made on this is what it all comes down to. Certainly not in the expedited decisions, that is for sure.

Mr. **GARRIERY**. I think you will find a wide range of acceptance to that statement for sure. And of course I suppose we could all be guilty of self-serving, to protect one's home and environment is self-serving, to protect one's investors is also self-serving but both are equally admirable positions to take.

I look at the overall issue as who gains or who stands to be served most. Some have a grander crystal ball than others. Mine has always been quite clouded, at least for the 12 future months. Iroquois in their proposals and some of their statements are looking as much as 30 years ahead.

By the way, I am not overly impressed by the lovely pictures shown depicting the pipeline as a mere nature trail. It certainly is not. But Iroquois has claimed that a need for natural gas exists in Connecticut that would justify a major pipeline of these gigantic proportions, but we believe their proposal is flawed. Independent studies indicate that Connecticut's natural gas consumption will at best grow at a rate of 1.2 percent over the next 30 years. Our research shows an overkill mentality on the part of Iroquois. 1985 statistics indicate Connecticut local gas distributors purchased 85 billion cubic feet of gas to supply 75 billion cubic feet to Connecticut customers. This is documented and is public information.

Iroquois proposes an additional 43 billion cubic feet of imported gas per year, for a total of 150 percent of 1985 usage. Using the controversial but at the moment accepted 1.2 growth rate, Connecticut would not use all of this additional gas until maybe the year 2015, if then at all. The cost to Connecticut, and particularly Newtown, clearly exceeds the benefits that are derived. Restricted land use, lost property values and aesthetic degradation are heavy prices to pay for unproven needs.

Newtown's opposition to Pipeline Encroachment, affectionately known as NOPE, has from its inception pledged itself to gather information about the proposed pipeline and its probable impact on Newtown, and to present the findings and opinions and concerns of Newtown to FERC. We have advocated a sensible supply of natural gas sensibly delivered. Iroquois, by its arrogant approach, proves insensitive to property rights and environmental issues that Connecticut residents face.

Our statement, Senator, detours our feelings and addresses issues raised by pipeline proponents.

Senator **Weicker**. Thank you very much.

STATEMENT OF BRODERICK MacKENZIE, NEWTOWN, CT

Mr. **MacKenzie**. Good morning, or Good Afternoon, I think we are all right now.

My name is Broderick MacKenzie, I am just a resident of Newtown. The pipeline does not affect my property, but I want to go on record supporting what you have heard from the other Newtown residents, from our representative the First Selectman, from the State Representative, to go on with my good neighbors and friends supporting their concern and opposition to the pipeline.

The most critical aspect that I have heard this morning in listening to all of the discussion back and forth is why we have to proceed so quickly, so fast? Why do we need the 436 water today? Why can't we take our time, have all the facts made known to the public and the Commission in Washington? And I thank you very much for giving us the opportunity here today at least to hear some more of the facts and to see that the questions are answered and maybe the Commission ought to reconsider its decision of last week.

Thank you.

Senator **Weicker**. Thank you very much.

Our last witness is Mr. Petty, is that correct?

STATEMENT OF DAVID PETTY, FARMER, NORTHWEST CONNECTICUT

Mr. **Petty**. I have the privilege of having our farm in the original proposed river. The first thing I would like to say is that the original statements made by Iroquois about their fine intentions they demonstrated on a map at our town meetings how they very carefully avoided the park area in Northern New York State, you know the Catskills and the Adirondacks. The State of Connecticut does not have the Catskills, we don't have the Adirondacks. The Northwest corner of Connecticut is the only thing the state has that is truly still a scenic area and deserves all the protection it can get.

In their initial statements they claim that they would avoid our plans, they would avoid wildlife sanctuaries. In truth, the original proposal runs right smack through the middle of a piece of property that the National Park Service just purchased for $3 million, about 1,200 acres. They go right smack through the middle of it.

Our farm borders on that and our eventual intent for our farm is to be a permanent wildlife sanctuary, not development to go right through the middle of our place, with no regard for the wetlands or anything. It is just in a straight line on the map.

If the Iroquois project truly had the merit that these people claim it has, they would not have needed to hire a public relations firm and give them a piece of the action to try and sell it to the public. You made the point, sir, that the utilities are only showing free enterprise, imminent domain is a total negation of free enterprise. In truth, a land owner with major damage would receive maybe two cents on the dollar and the only recourse would be in the legal system.

Senator **WEICKER**. Let me clarify that point.

The point that I made to my friend from Tennessee Gas Transmission was that had Tennessee Gas Transmission and Algonquin served the state properly, we wouldn't be concerned with Iroquois. In other words, this wasn't something that just came out of the blue. And I pointed out to him that aside from his belated offer, he is part of the problem is really what I am trying to say. It was the idea of having to turn somewhere else within a free enterprise system. So that I want to clarify very clearly was the intent of my statement.

Mr. **PETTY**. Perhaps, if their failure now to try and cooperate with Tennessee and Algonquin is that in truth the Connecticut utilities are not fighting for supply, they are fighting for power.

Senator **WEICKER**. I mentioned that very point. In other words, how much is the need and how much is their own self-interest. I couldn't agree with you more.

Mr. **PETTY**. I think that the people in Northwest Connecticut have been unfairly characterized as being against energy at all costs, and I think this whole process has become a problem because it puts the cart before the horse. If there is a need for gas, fine, let's determine this need for gas, then let's point a route with the State of Connecticut actively involved in planning such a route that does minimum damage. Iroquois has presented its proposal and then made more proposals, so it is harder to hit them. But they presented as either it is all or nothing. "It is us or nothing," and the Chairman of Northeast Utilities had a little piece on the front page of the Connecticut section of the Times showing a nice little house with the smoke coming out of the chimney and it is like, "If we don't approve Iroquois, all the lights are going out." I just can't buy it.

They dismissed the idea of going along state highways or down mediums and you get up near Syracuse, New York and a major pipeline goes right along the side of the New York State Throughway for maybe 30 miles. They just dismiss it out of hand.

Senator **WEICKER**. Well, I agree with you and I think the alternatives to this are clearly matters that should be raised and considered. But the one thing I don't want to have is a bunch of people raising some alternative proposals and then as soon as this thing closes down, if it closes down, running off and leaving everyone else holding the bag. I am trying to pin people down at this stage of the game to go ahead and deliver on the statements that are being made.

I am now addressing my remarks to all parties. I don't want the State of Connecticut to be made a fool of either by those who live in the state or out of the state. That is really what is at issue here.

So in any event, yes?

Mr. PETTY. One thing is that at the town meetings we had questions raised if the State Department of Environmental Protection would be allowed input and so on and so forth, and their representatives clearly stated that FERC could and would override anything they had to say.

Senator WEICKER. Of course, I don't think that is true. I think the Department of Environmental Protection should definitely have input. As I said before, I would rather have input from our own people in the State of Connecticut then a bunch of people down in Washington, D.C. I am willing to take the heat on federal issues, but you also have an elected government here in the state, just as you hold your town officials responsible in the various towns that are involved and when it comes to the environment, I don't think anybody is better qualified to speak than, first, the local communities, and, second, the State of Connecticut, and, lastly, Washington, D.C.

Mr. PETTY. But in these proceedings, sir, Iroquois has basically stated to the public, maybe just to try to get them to back down, but they stated that they can get a federal permit and run over anybody in their way.

Senator WEICKER. Don't worry about that, that part of it we can handle.

In any event why don't we go ahead and bring the hearing to a close.

Those who wish to receive a copy of the hearing, you will need to sign up just outside the auditorium and you will receive such a copy.

I want to thank you all both for coming today, your rich input. Any comments you make are going to be going to the Federal Energy Regulatory Commission, and those who have preceded you in the witness chair, I thank you for your attendance and for your testimony.

The Committee will adjourn.

[Whereupon, at 12:45 p.m., the hearing was adjourned.]

APPENDIX

ADDITIONAL MATERIAL SUBMITTED FOR THE RECORD

NORTHEAST UTILITIES
NU
THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 721-2625

PHILIP T. ASHTON
SENIOR VICE PRESIDENT &
GENERAL MANAGER — GAS GROUP

August 7, 1987

The Honorable Lowell P. Weicker, Jr.
The United States Senate
Russell Senate Office Building
Washington, D.C. 20510

Re: Iroquois Gas Transmission System

Dear Senator Weicker:

This letter responds to the two questions forwarded with your letter to Mr. Philip T. Ashton dated July 31, 1987. Mr. Ashton is away from the office and I have responded on his behalf in order to meet your requested response date.

Your first question is:

> You ask this Committee and myself to urge FERC to be expeditious in a full and fair review of the Iroquois pipeline. Do you mean a review under the optional expedited certificate procedures? Would a full and fair review using the more thorough 7(c) procedures that FERC normally uses for such major pipelines be acceptable to you?

In calling for a full, fair and expeditious review of the Iroquois application by the FERC, we are referring to the optional expedited certificate procedures or any other procedure which minimizes the opportunity for wasteful litigation by parties seeking only to frustrate or delay the project. FERC's traditional Section 7(c) certification process has proven to be a cumbersome and unproductive process, particularly in cases like this where there are substantial forces seeking to prevent competition from additional gas supplies and pipeline capacity in Northeast gas markets. I call your attention to FERC's July 24, 1987 Notice Inviting Applications, which (at page 6) pointed out that, after seven years of wasteful litigation, little was accomplished in the Section 7(c) Boundary Gas proceeding. It is precisely the Boundary-type proceeding which Iroquois wishes to avoid.

Your second question is:

> Does your company have any doubts that Iroquois would not be judged favorably if compared to other pipeline proposals?

> (If no, then) Then why not submit the Iroquois application to the analysis of need and alternatives as provided under FERC 7(c) procedures?

Iroquois is the culmination of many years of effort to resolve the pipeline capacity problems which have plagued the Northeast. That effort included numerous major proposals by existing pipeline companies to increment capacity to the market, none of which has come to fruition. We believe that the Iroquois proposal is real, viable and will be judged favorably in comparison to other proposals. We do not believe, however, that the traditional Section 7(c) process is well-suited to a full, fair and expeditious evaluation of pipeline proposals, for the reasons stated above. In our view, the issues of need and alternatives can be fully and fairly evaluated in the context of the optional certification procedures, particularly when one takes into account the parallel proceedings being conducted by the National Energy Board, the New York Public Service Commission, the Connecticut Department of Public Utility Control, the Economic Regulatory Administration and the Corps of Engineers.

Rather than expand on the responses above, I refer you to the letter sent to you by Mr. Robert Reid, President of Iroquois, in response to questions which you addressed to him. I endorse each of the points made by Mr. Reid.

If I or Mr. Ashton may be of further assistance to you or your staff, please do not hesitate to call.

Sincerely,

John J. Smith

John J. Smith
Vice President
Gas Supply Planning and
Business Services

JJS/kdd

STATE OF CONNECTICUT
OFFICE OF POLICY AND MANAGEMENT
COMPREHENSIVE PLANNING DIVISION

August 13, 1987

Hon. Lowell P. Weicker, Jr.
United States Senator
Room 225
Russell Senate Office Building
Washington, DC 20510

Dear Senator Weicker:

This is in response to your request that I answer four questions regarding the proposed Iroquois Pipeline. My answers are offered as follows, listed in the same numerical order as your questions.

1. I feel that your question as to whether FERC can study all alternatives to supplying gas to Connecticut under the optional expedited certificate process is best directed to FERC and its attorneys. Reportedly, FERC has not yet decided how they will handle competing pipeline proposals under the optional procedure. It is the state's position that FERC must examine alternatives under the National Environmental Policy Act requirements and under the Natural Gas Act. Furthermore, it is my understanding that FERC is accepting until November 13 (now December 1) further applications for serving this area of the country. I am not aware that they have indicated how they will consider such applications. However, if more than one is received, I must presume that FERC will have to find an appropriate means of collectively considering such applications, regardless of what the procedure is entitled.

2. To my knowledge, newspaper publicity concerning the draft DPUC report and reactions of any kind or source to the content of the report have both been very limited. Personally, I presume the need for energy in Connecticut will grow over time, but the need will be impacted by the future of industry in this state versus commercial and residential development. The question of meeting energy needs by gas versus oil will, I believe, depend upon supply and price. We look forward to review of the final DPUC report.

3. I believe the reason for concern and controversy regarding the pipeline relates to the fact that the people of this state and its officials cherish the appearance of the state and have strong environmental feelings and concerns. The wide-ranging variety of these concerns is set forth in the 76-page report entitled "Comments of the State of Connecticut and the Citizens Monitoring Group on the Scope of the Draft Environmental Impact Statement," copies of which were provided to Mr. Osborn by me. A look at the second page of the Table of Contents provides a list of environmental concern topics raised by citizens, public interest groups, municipalities,

and state agencies. These are described on pages 29 through 75 of our report. To put it another way, concerns range widely - for example, from farmers and other land owners in the Connecticut hills regarding use of the right-of-way by off-road-vehicles to impact on the shellfish beds of Long Island Sound, to an overall objection to the aesthetic impact of a clear-cut swath throughout rural wooded areas. Controversy, concern and objection have been compounded by the lack of requirement by FERC to justify the need for the project under the optional certificate process. As to what can be done, since the decision rests with FERC, I think FERC has a responsibility to hold evidentiary hearings to determine the project's need and value, to compare all alternative proposals and to produce the best possible environmental impact statement.

4. Obviously, I do not have the responsibility or expertise to scientifically obtain and weigh reaction to the announcement of a new preferred route. However, I believe municipalities and citizens on the now preferred route have a heightened concern, while those on the original preferred route may feel some relief. Since the original route was not withdrawn, and since the spur to Hartford remains a possibility, concerns, suspicions, skepticisms, remain widespread. I also think there may be some recognition that FERC could make some other route decision. Therefore, the matter bears continued attention by all. Frankly, I believe people are awaiting the FERC Draft Environmental Impact Statement, the desired evidentiary hearing, and indication of other firms proposing to supply gas. The state of Connecticut, its Governor and Attorney General, the Department of Public Utility Control, Department of Environmental Protection, Office of Policy and Management, Division of Consumer Counsel and other state agencies, the Citizens Monitoring Group, the municipalities and various organizations have done a great deal of work regarding this matter and will respond to any such actions.

I hope this is helpful.

Sincerely,

Horace H. Brown

Horace H. Brown
Acting Under Secretary

HHB:tmj

cc: Governor William A. O'Neill
Senator Abraham A. Ribicoff
Attorney General Joseph I. Lieberman
Secretary Anthony V. Milano, Office of Policy and Management
Chairman Peter G. Boucher, Dept. of Public Utility Control
Commissioner Leslie Carothers, Dept. of Environmental Protection
James F. Meehan, Division of Consumer Counsel

CNG CONNECTICUT NATURAL GAS CORPORATION • P.O. BOX 1500 • HARTFORD, CONN 06144-1500 • (203) 727-3000

August 13, 1987

The Honorable Lowell Weicker, Jr.
United States Senator
225 Senate Russell Office Building
Washington, D.C. 20510

Dear Senator Weicker:

Thank you for the opportunity to testify in Newtown on July 20 at the Subcommittee's hearing on the Iroquois Gas Transmission System. I believe the hearing provided all interested parties with another opportunity to voice their views on the proposal. I commend you for initiating the hearing which I believe was handled with fairness and diplomacy. I am in receipt of your additional questions regarding the project. The answers which follow are submitted, as requested, for the Subcommittee's record.

Question #1

You state that your company believes in the need for the Iroquois Pipeline. Don't your really mean that your company believes in the need for additional natural gas and not for a specific pipeline?

Connecticut Natural Gas Corporation believes both in the need for additional natural gas and the need for the Iroquois Pipeline. As I stated in my prepared remarks at the hearing, the decision to become a partner in the Iroquois project was made after numerous attempts by CNG and other northeastern gas distribution companies to secure additional supplies of natural gas from the two existing pipeline systems. To date, only small amounts of natural gas have been made available by the current pipelines. As a result, given the continued growth in our service area, CNG expects to need additional supplies to meet customer requirements in the early 1990's. If history teaches us any lessons, we cannot continue to wait for proposals which never materialize or are withdrawn, expansions which never occur and offers from the current pipeline companies which do not address the real needs of CNG, the other Connecticut utilities and the Northeast region.

CNG became a partner in the Iroquois consortium because the project itself offered many benefits to our company and our customers. As a regulated utility providing natural gas service to homeowners and businesses in Connecticut, we must continually seek ways to provide energy at the lowest cost.

The Iroquois Pipeline gas will be cost-competitive with other natural gas currently being delivered to the region. The Iroquois pricing structure would be the same as the Boundary Phase II project in that it would utilize a price index formula tied to the price of #6 and #2 heating oil and natural gas delivered to the New York market. Boundary Phase II volumes, though limited, are the least expensive source of firm supplies to date. Iroquois therefore will provide a secure source of additional supplies to the region at a competitive cost.

There is also clear merit in the Iroquois proposal in that it provides a third source of competition into local markets--competition that makes for a more price-sensitive marketplace. In today's deregulated gas marketplace, the trend is to shop. Many buyers are doing just that. Pipelines which are slow to change their traditional long-term and inflexible contracts are losing customers in this competitive marketplace. Neither of the two existing pipelines have offered the contract flexibility available from a project like Iroquois.

Iroquois will be an "Open Access" pipeline which means it will provide transportation services for natural gas on a nondiscriminatory basis. The Iroquois Pipeline will serve solely as a shipper of the gas. Therefore, CNG and large volume end-users can shop to find the lowest gas price available and have it shipped via the pipeline.

In conclusion, we believe our thriving service area needs new supplies of reliable and cost-competitive natural gas to meet future demand. After years of study and examination of alternatives, we are convinced that the Iroquois Pipeline is the best, and currently only proposal, capable of providing our ratepayers and state with additional supplies of safe, clean and affordable natural gas.

Question #2

You state that the citizens of Connecticut have had numerous opportunities to comment on the pipeline proposal. Why is there still so much concern and opposition to this pipeline then?

In today's society, the siting of any major facility, large or small, is a difficult process. We need but to look at the controversy surrounding the siting of prisons, power plants of any type, resource recovery and waste treatment plants, and even shelters for the homeless, to see how quickly opposition can emerge. There is, of course, merit in assuring that the siting of any entity is carefully considered, weighing the risks and benefits to all. This is clearly true of the Iroquois Pipeline. CNG and the entire Iroquois consortium continue to be committed to the thorough review which is taking place at the state, federal and Canadian government levels.

Unfortunately, whenever controversy develops, misinformation tends to follow. A case in point is the environmental impact of the pipeline. The Iroquois participants are fully committed to assuring that this project is sited with the least environmental impact on our beautiful state. The fact is that the Environmental Report filed by Iroquois is seen as the most comprehensive review ever done on a project of this nature. In addition, the Optional Expedited Certificate (OEC) process at FERC includes an environmental impact statement which allows for full public scrutiny and comment in exactly the same manner under NEPA as any other facility being sited. Yet, over and over again, we have seen published reports and talked with individuals who continue to believe that the environmental impact of the pipeline will be given only a cursory examination under what they call the "fast-track" process. Nothing could be further from the truth. This is but one example of the lack of general understanding on a major aspect of the project. When the facts are not clear, emotions tend to rule.

Since the inception of this project, the partners have sought ways to present the facts on this project. Despite all of these efforts, questions concerning the need, environmental impact and alternatives to Iroquois have persisted. That is why we have asked the FERC and ERA to conduct evidenciary hearings in Connecticut. These hearings will provide additional opportunities for all of the facts to be presented to the people of our state. While these hearings may not change some individuals views, we do believe that the merits of the project and its worth to the future of the state will become clearer to many through this process.

Question #3

If a new natural gas pipeline was approved that had less environmental impact, made use of existing right of ways and had the same price for gas as Iroquois, would you go out and buy that gas?

Historically, CNG has always examined carefully any opportunity to bring additional supplies of natural gas to our service area. Before entering into contract with any pipeline company for gas supplies, we examine a number of factors, including rate design, system benefits, competitive issues and timing of deliveries. In this hypothetical instance, we would, of course, examine such a proposal in the same manner. However, no such proposal has emerged. That fact has led to the development of the Iroquois Project which has been tailored in every aspect to meet our region's needs.

Recent action by FERC will likely result in additional proposals to serve the Northeast market. On July 15, the Commission voted to declare an "open season" on applications to serve our region. We will follow the process at FERC carefully. In the final analysis, we think the record will show that the Iroquois Project is the best approach to meet the needs of our companies and customers.

Senator Lowell Weicker, Jr.
Page 4

I hope this information is helpful to you and the Subcommittee as you study this project. Please feel free to contact me if I can be of further assistance.

Sincerely,

Vic Frauenhofer

Victor H. Frauenhofer
President and Chief Executive Officer

THE SOUTHERN CONNECTICUT GAS COMPANY
A CONNECTICUT ENERGY COMPANY

JOHN H. LARSON
President and
Chief Executive Officer

August 10, 1987

The Honorable Lowell P. Weicker, Jr.
United States Senate
Washington, D. C. 20510

Dear Senator Weicker:

I appreciate being given the opportunity to appear at the Energy subcommittee field hearing in Newtown on the Iroquois Gas Transmission System (IGTS) project.

We are appreciative of the fact that the hearing was conducted in a balanced and fair manner, with both proponents and opponents having adequate opportunity to present their cases.

We recognize that we share your view that the state is too heavily dependent on imported oil and it should have a more diverse energy mix. We also believe, as you do, that the IGTS project should be subject to a thorough review. For this reason, we have asked the Economic Regulatory Administration (ERA) and the Federal Energy Regulatory Commission (FERC) to hold evidentiary hearings in Connecticut. We have suggested the ERA hold hearings on the need for Canadian gas, in conjunction with its review of the importation application from Alberta Northeast, Inc. (ANE), and that FERC hold hearings on the need for the Iroquois pipeline as part of the comprehensive environmental review of the project.

During the field hearing you asked why the Iroquois project was conceived. We would like to expand on the answer.

The Iroquois project was borne from the inability of Connecticut's two suppliers (Tennessee's Gas Pipeline Company and the Algonquin Gas Transmission Company) to increase capacity and gas supply to meet the need of our existing and future customers.

The state's natural gas distributors are keenly aware of their public service responsibility not only to satisfy their customers' current and projected future demand requirements, but also to do so at a fair price. In 1984, executives of Connecticut's gas distribution companies met with their counterparts at the Brooklyn Union Gas Company to explore alternatives that would bring more gas to the region and provide a greater voice in the gas supply planning process for the gas distribution companies.

880 Broad St. • P.O. Box 1540 • Bridgeport, Conn. 06601 • (203) 382-8101 • 55 Church St. • New Haven, Conn. 06510 • (203) 786-8111

Conclusions reached at that meeting were:

1) There was an abundant supply of natural gas available in western Canada, and at prices lower than available domestic gas; but,

2) There were limited means to bring the gas here;

3) A proven builder of gas pipelines, TransCanada Pipelines, Ltd., was interested in becoming a partner in the construction of a new pipeline to the New England/New York markets;

4) Construction of a new pipeline from Canada would allow their distribution systems to be fed from the north as well as from the south and improving system security, reliability and efficiency.

These conclusions led to a feasbility study, and ultimately, to the proposed Iroquois project which with its companion ANE project, tied all elements together. At the time it was conceived, the Iroquois project was the only project positioned to increase natural gas deliverability in sufficient quantities to meet our state's growing energy needs. It remains to this day the only project which will do so. To date, there is no other project on file with FERC that would do the same job. Recent action by the FERC may allow for appropriate focus on this fact.

Further, we believe it is important to recognize that this project, in concert with the Alberta Northeast, Inc. gas supply project, meets regional needs which encompass New York and New Jersey as well as Connecticut. The Connecticut companies should not be isolated from this regional perspective.

I am attaching responses to the two specific questions submitted to me by your July 31, 1987 letter. I hope these will convey to you the importance of this project to our present and future customers and indeed to our state.

We recognize that there will continue to be understandable concerns raised by those whose properties are directly affected by the construction of this pipeline. We are committed to a maximum effort to minimize the temporarily adverse impacts of construction and to ensure we achieve maximum long term environmental compatability. However, it should also be recognized that much, if not most, of the determined opposition to this project has been and is being advanced by oil and gas industry entities that will be faced with increased competition from this new pipeline.

We believe it has been the absence of this competition which has resulted in our region having such a heavy dependence upon imported oil and the highest energy prices in the United States.

We would be pleased to answer any further questions you might have as we continue to seek to obtain approval for this project.

Respectfully yours,

John H. Larson

JHL:pm

Attachments

Q.1. You state that Connecticut's Department of Public Utility Control finds that demand for natural gas will increase. Will there be such a large increased demand as to use all the gas that Iroquois would supply? What will become of the excess supply?

A.1. Connecticut's Department of Public Utility Control (DPUC) conducted an investigation of demand and supply forecasting by the State's gas distribution companies. This docket #86-10-13 produced a substantial record and a draft order and finding that clearly indicates recognition of the need for the addition of pipeline capacity and natural gas supplies. Further, it recognized the combined Alberta Northeast, Inc. (ANE) and Iroquois Gas Transmission System (Iroquois) projects as the best means to satisfy that need.

Speaking specifically for The Southern Connecticut Gas Company (Southern), the increased supplies to be transported over the Iroquois system will offset more expensive peaking supplies (gas manufactured using propane or gas from storage including liquified natural gas) in the winter and in the summer will be dedicated to our off-peak market.

Approximately two-thirds of winter peak day requirements are met from pipeline delivery, and one-third from liquid natural gas and propane air peaking supplies. Iroquois' 35,000 MCF/day of delivered gas will dramatically reduce, but not eliminate, the need for peaking supplies during the winter months. With respect to the off-peak summer market, Southern has a five year transportation arrangement with Tenngasco Corporation to deliver up to 40,000 MCF/day to United Illuminating Company's New Haven Harbor Station. After the five year transportation agreement expires, Southern expects to be able to make those sales directly to United Illuminating. In the meantime, the additional supplies to be made available through the Iroquois system could be dedicated to increasing United Illuminating's use of natural gas in the off-peak season at a savings to electric ratepayers. United Illuminating's plant could be adapted to burn up to 90,000 MCF/day and the supplies to be delivered to Southern over the Iroquois system will equal 35,000 MCF/day. That, together with the Tenngasco amount currently committed to this plant would equal only 75,000 MCF/day.

Perhaps the most pressing need for additional pipeline capacity and gas supply to be provided by the Iroquois system is Southern's "peak day" requirements. Southern has taken steps to provide adequately for "peak day" requirements through 1989-1990. However, without approvals that provide assurance of the availability of Iroquois service in time to serve that winter, it will be necessary for Southern to construct an additional propane air "peaking" plant facility at a cost that will be approximately two and one half times our affiliates' investment in Iroquois. The propane investment will be a rate base investment and the gas produced will have a unit cost about three times the gas to be delivered by Iroquois.

Further, the demand for gas from presently connected dual fuel capable customers on Southern's system being served under interruptible service contracts cannot be fully satisfied. The additional supplies delivered over Iroquois will enable Southern to further extend service to its existing dual fuel capable customers who are principally commercial/industrial customers and apartment houses. These sales are made in direct price competition with fuel oil. The market responsive pricing contract for the Alberta Northeast gas supplies delivered by Iroquois will be instrumental in satisfying this existing market. In addition, the availability of increased supplies will encourage additional large users to invest in dual fuel capability becuase it makes them less dependent upon fuel oil and offers a fuel cost savings during the off-peak season.

In general, all of the above factors are also applicable to Connecticut Natural Gas (CNG) and Connecticut Light and Power (CL&P) although perhaps in different degrees and time frames.

Additionally, the three gas utilities are experiencing increased demand in the cogeneration and gas air conditioning markets. Committed and approved cogeneration projects include Hartford Hospital, Perkin Elmer and Bridgeport Resource Recovery. Large air conditioning projects already committed to the project include IBM and Bridgeport Center.

There is also the potential of high volume demand from electric generation facilities.

At present approximately 60,000 MCF/day demand exists from CL&P's Montville Plant, converted to gas in 1985, and United Illuminating's New Haven Harbor Station converted to gas in 1986. More importantly the remaining potential existing at CL&P's Middletown, Devon and Norwalk plants and United Illuminating's English Station and Bridgeport plants, in addition to the remaining expansion for the New Haven Harbor Station present so great a potential demand in the off-peak season that it should ensure no excess supply.

Finally, the economic vitality of the state will continue to result in increased demand from the traditional markets which themselves have been under saturated. Increased capacity and gas supply will enable accelerated conversions from oil to gas heat by exisitng non-heating gas customers and a continuation of 90% plus share of market penetration for new construction on main. Again this will ensure no excess supply.

In conclusion, the projected increased incremental supply of natural gas to be delivered by the Iroquois Gas Transmission System will serve to (a) replace higher priced winter peaking supplies; (b) serve to extend service to presently unmet demand during off-peak season; (c) serve new large volume incremental demand from electric generation plants, cogeneration projects and large commercial air conditioning facilities; and, (d) increased growth from traditional markets unfettered from capacity and supply constraints. This incremental demand potential is sufficiently large to ensure no excess supply.

Q.2. You state that there will be increased competition in the state with three pipelines supplying gas to Connecticut. It seems to me that there may actually be less competition since the gas companies will now own their own pipeline. Do you think this is possible?

A.2. It is inconceivable to us that the introduction of the Iroquois Gas Transmission System's (Iroquois) third pipeline into Connecticut would suggest that "there may actually be less competition since the gas companies will now own their own pipeline".

There are many factors contributing to the increased competition result that are beyond the control of the owners' of the new pipeline.

First, gas supply planning and gas supply dispatching activities of a local distribution company (LDC) are subject to review by the state's Department of Public Utility Control (DPUC). Should an LDC deviate from a best cost strategy in an attempt to favor an affiliate company contract, the DPUC's authority to disallow those gas costs could be exercised as immediately as that month's Purchase Gas Adjustment approval hearing.

Second, the contract price for gas supplies from Alberta Northeast, Inc. (ANE) which will be delivered by the Iroquois pipeline is set by a formula which is based upon the prices in existence in the New York City market for the pro-rata mix of number 2 and number 6 fuel oil and the interstate system gas supplies provided by the Tennessee Gas Pipeline (TGP), Texas Eastern Gas Transmission (TE) and Transco Gas Transmission (TGT) which are the major suppliers to New York City. Consequently, price for these Canadian supplies is designed to be competitive on an on-going basis and the producers in Western Canada are at risk for the net-back swing in revenues.

Third, the rates for transportation service are subject to regulation by the Federal Energy Regulatory Commission (FERC) and under the guidelines for an optional certificate of application the reservation fee component of rate design does not allow for a return of or on equity and thereby requires that the commodity component be as competitive, i.e. low, as possible in order to achieve the through put level rate of 80% upon which the allowed rate of return is predicated.

This rate design forces a more competitive market driven result than is presently reflected in interstate pipelines certificated under traditional 7C application guidelines.

Fourth, the third pipeline's introduction of increased capacity will not only produce competition for the two existing pipelines from itself, it will also greatly increase the potential "gas-on-gas" competition from producer, marketing affiliates, brokers et al emerging in the more deregulated natural gas industry. This competition has been severely constrained by the absence of capacity in the winter months and "shoulder" periods of spring and fall.

Fifth, the increased demand for natural gas is projected to be beyond the increment of supply being provided by the ANE/IGTS project. Development of these incremental markets will require that natural gas prices compete successfully against number 6 and number 2 fuel oils. Increased gas supply in a market dominated by oil will necessarily increase competition against oil prices and the result is very likely to keep prices of both commodities lower than would otherwise be the case.

In summary, we believe there is no way an affiliate's ownership of a portion (4% for Southern, 25% for the three Connecticut utilities and 47% by all of the U.S. distribution company partners) would be allowed to create less competition because (a) state DPUC authority to disallow gas costs incurred by LDC's; (b) a gas pricing formula based on prices existing in the market is designed to result in a competitive price throughout the contract term; (c) FERC's optional certificate rate design guidelines force commodity price competition to achieve allowed rate of return; (d) gas-on-gas competition will be increased by the introduction of additional pipeline capacity; and, (e) the marketplace potential for growth depends upon competition with number 2 and number 6 fuel oil.

L4/MISC

Iroquois
GAS TRANSMISSION SYSTEM

August 10, 1987

Honorable Lowell P. Weicker, Jr.
United States Senate
Washington, D.C. 20510

Dear Senator Weicker:

Re: Iroquois Gas Transmission System

Thank you for your letter dated July 31, 1987. Let me say at the outset that I appreciated the opportunity to speak at the July 20, 1987 hearings in Newtown, Connecticut.

Major energy projects are controversial by nature and the Iroquois proposal is no exception. I wish to commend you on the open and unbiased manner in which the hearing was conducted. I think the hearing provided a constructive opportunity for proponents and opponents of the project alike to voice their concerns, particularly over the process by which the regulatory determinations will be made with regard to the proposed facilities.

Your first question is:

> You seem open to a comprehensive scrutiny by the public and regulatory authorities. Why then have you submitted your application for consideration under FERC's Optional Expedited Certificate procedures which skip some of the normal procedures?

There were two primary reasons for filing the Iroquois FERC application under the optional certificate procedures, neither of which reflects a desire to avoid comprehensive scrutiny of the proposal. The first and foremost reason was to limit the opportunity for litigation by parties whose only interest is in blocking or substantially delaying the project. As I noted during the hearings, the Iroquois project (and the related Alberta Northeast Gas, Limited supply project) have their genesis in the Boundary Gas project. The Boundary Gas project was a gas supply project initiated in late 1980 by fifteen of the nineteen companies involved in the Iroquois/ANE project. Those companies chose to rely upon the existing interstate pipelines to transport the Boundary volumes to their markets in the Northeast. While the first two phases of the Boundary project were ultimately approved, the final approvals did not come until July 24, 1987 -- almost seven years after filing.

Toronto Office:
P.O. Box 54
Commerce Court West
Toronto, Ontario
M5L 1C2
Canada
(416) 869-2740

Shelton Office:
2 Enterprise Drive
Shelton, Connecticut
06484
U.S.A.
(203) 926-1555

Albany Office:
P.O. Box 1847
Albany, N.Y.
12201
U.S.A.
(518) 434-1296

The reason for the delay, and the reason why those companies ultimately decided to create pipeline capacity over which they had some say, is best described at page 6 of the FERC's recent Notice Inviting Applications, which established an "open season" for proposals to serve the Northeast gas markets:

> This notice is spawned, in a large part, from the Boundary proceeding and the comments, interventions and protests filed by a number of parties in Boundary and in other pending northeastern-area pipeline projects. Under the rubric of Ashbacker, many participants at the Commission exercised their administrative prerogatives in a manner which turned the Boundary proceeding into an administrative procedural moving target, constantly evoking further applications, amendments to applications, counterproposals, and proposals to counter the counterproposals, to the point where scarcely any matter became ripe for adjudication for an extended period of time.

The objective of the Iroquois and ANE project sponsors was to have additional firm supplies and firm pipeline capacity available to the Northeast markets in time for the 1988-89 winter heating season, or the 1989-90 winter heating season at the latest. Accordingly, the sponsors felt that the economic risks inherent in the optional certification procedure were outweighed by the prospect of avoiding lengthy and unproductive litigation which had characterized past attempts to bring additional supply and pipeline capacity to those markets.

Iroquois' second reason for filing under the optional certification procedures stems from the fact that the sponsors of the Iroquois and ANE projects and the Iroquois shippers are principally state-regulated local distribution companies. It was felt that detailed regulatory scrutiny of issues such as "need" for the project and indeed the participation of the distribution companies themselves would occur -- and properly so -- at the state level. The scrutiny which would occur at the FERC level under optional certification procedures was felt to adequately complement scrutiny at the state level. In short, there was no desire to avoid public or regulatory scrutiny of the project; the desire was to have that scrutiny occur at the most appropriate level.

I would add that, in opting for optional certification, Iroquois understood clearly that it would be subject to full-scale environmental review by the FERC under the National Environmental Policy Act. Indeed, Iroquois understood the environmental sensitivity of major energy projects and thus devoted extraordinary resources to preparation of the detailed Environmental Report to the FERC. Iroquois also voluntarily submitted to the Article VII environmental review process in New York conducted by the New York Public Service Commission. Iroquois has also indicated to the State of Connecticut that it is prepared to file an application before the Connecticut Siting Council, although it is not now clear whether the Council will accept such an application in light of the comprehensive environmental review being conducted by the FERC.

Your second question is:

> What are the major concerns to Iroquois if your application is considered under the normal FERC 7(c) proceedings instead of OEC?

As noted above, the major concern is that FERC will be unable to control the litigation tactics of parties who seek to exclude competitive gas supplies and pipeline capacity from the Northeast. Again, I would point to the incredibly wasteful Boundary proceeding as a prime example of such litigation. As you may know, the optional certification procedures do not preclude hearings on the merits of a pipeline application. They merely place the burden on the party opposing a project to come forward with valid reasons why hearing should be held. It is that device which permits the FERC and an applicant to avoid hearings where the sole objective is delay of the project.

Your third question is:

> It is obvious that Connecticut's concerns are for a thorough, open consideration of the environmental impact, need and possible alternatives to any pipeline proposal. Do you object to this? (If no) Then why is so much opposition and concern with the way that your application may be considered?

I believe there is a genuine misunderstanding as to the level of scrutiny that a project will receive under the OEC procedure.

Indeed, the Iroquois and ANE projects and the individual participants either will undergo or are presently undergoing rigorous proceedings before the National Energy Board in Canada, before the New York Public Service Commission, before the Connecticut DPUC, before the Economic Regulatory Administration, before the Corps of Engineers and before the FERC. Particularly at the FERC, scrutiny of the environmental issues will be intensive. To the extent that Iroquois has expressed concern over procedures at FERC, the concern relates to the past history of competitors using the FERC forum as a tool solely to delay and ultimately frustrate projects. If there were some assurance that the Section 7(c) process would not disintegrate into an "administrative procedural moving target" as it did in Boundary, we would not object to this course.

I would like to close by emphasizing that Iroquois' primary goal is to have in place pipeline capacity which its sponsors and non-sponsor shippers have judged needs to be in place in time for the 1989-90 winter heating season. In our view, the OEC procedures coupled with the proceedings being conducted in other fora provide the greatest assurance that both the need for, and the environmental viability of the Iroquois project will be properly tested and at the same time the greatest assurance that the FERC certification process will not be used as a tool for frustrating Iroquois' goal.

I believe there is a "window of opportunity" to bring a long-term, secure, competitively-priced alternative supply of natural gas to the Northeast. Should the regulatory process cause the project to be delayed beyond this window, this opportunity may be lost.

If I can be of any further assistance to you or your staff, I would be pleased to do so.

Very truly yours,

Robert J. Reid
President

RJR/lc

Tennessee Gas Transmission
A Tenneco Company

TENNECO

Joseph E. Ramsey
Vice President

Tenneco Building
1010 Milam
P. O. Box 2511
Houston, Texas 77001
(713) 757-2230

August 13, 1987

Senator Lowell P. Weicker
United States Senate
SH-303 Hart Senate Office Building
Washington, D. C. 20510

Dear Senator Weicker:

I enclose Tennessee Gas Pipeline Company's responses to your four supplemental questions which are to be placed in the record of the Iroquois hearings.

Again, we appreciate the opportunity to appear at the hearings of your Subcommittee in Newtown last month. Your attention to the important issues surrounding natural gas demand and supply in Connecticut is extremely constructive.

Sincerely,

Joseph E. Ramsey

JER:tbb

Attachments

RESPONSES TO WEICKER INQUIRIES

Question 1

Are the existing gas pipelines in Connecticut supplying enough gas to meet Connecticut's demand throughout the year?

Response

In general, yes, although there is a need for some new capacity in the relatively near term. Connecticut gas distribution companies in 1986 utilized only 86.7% of the annual firm gas supply available to them. Thus, based on annual firm gas supply available, existing interstate pipelines could have delivered 12 billion cubic feet of additional firm gas supply in 1986.

If physical pipeline capacity, from the pipeline's storage fields east, is used to evaluate load factor utilization, this underutilization of pipeline capacity grows even larger -- to a load factor of 66.5%.1/ There is great seasonal variation in pipeline utilization, however. From December through March,

---

1/ The difference between annual firm gas supply and physical capacity computations arises because the Connecticut customers have "Annual Volume Limitations" on their firm gas entitlements which are less than their maximum daily volume times 365. These Annual Volume Limitations allow Tennessee to design facilities more efficiently -- using gas storage facilities located in New York and Pennsylvania -- to meet seasonal, heat sensitive loads. Thus, Tennessee has peak day capacity in place from the storage fields to Connecticut, but Connecticut customers need pay the cost only of annual average day requirements from producing areas to storage, plus the cost of meeting peak day requirements from storage to city gate delivery points.

existing gas pipelines serving Connecticut operate at full capacity. During this period Connecticut gas distribution companies further supplement gas pipeline supplies with gas peaking services (liquefied natural gas, synthetic natural gas, and propane air) which are cheaper than annual pipeline supplies to meet peak demands. From April through November, existing gas pipelines operate at well below capacity, as shown in the table below:

MONTHLY PIPELINE LOAD FACTORS

MONTH	PHYSICAL PIPELINE CAPACITY (MMcf)	ACTUAL LDC SEND OUTS (MMcf) 1985	1986	PIPELINE LOAD FACTORS 1985	1986
JAN.	9,900	10,140	11,171	100%	100%
FEB.	8,996	11,033	10,885	100	100
MARCH	9,900	9,536	10,300	96	100
APRIL	9,581	7,596	7,129	79	74
MAY	9,900	5,001	4,776	51	48
JUNE	9,581	3,788	3,575	40	37
JULY	9,900	3,635	3,161	37	32
AUG.	9,900	3,375	2,900	34	29
SEPT.	9,581	3,592	3,335	37	35
OCT.	9,900	4,136	4,272	42	43
NOV.	9,581	6,430	6,566	67	69
DEC.	9,900	9,208	9,687	93	98
TOTAL	116,620	77,470	77,757		

Thus, existing pipelines could easily have delivered more gas if additional capacity was available in January, but additional capacity in August would not have resulted in any additional deliveries.

Tennessee does, of course, see substantial opportunities for growth. As stated in my prepared remarks, we have offered to increase our capacity into Connecticut by 56 million cubic feet of natural gas per day and hope to work with the Connecticut companies to define and serve additional growth opportunities. However, we have consistently stated, both publicly and privately, that the Iroquois project as currently defined would create massive excess capacity which Connecticut consumers, Tennessee's other customers, and Tennessee's shareholders would be forced to pay for.

Question 2

There have been questions that Tennessee and other pipelines may not be able to expand to meet Connecticut's future demand for gas. What is your response to this?

Response

Tennessee is ready, willing, and able to expand to meet Connecticut's future demand for gas, and any insinuations to the contrary are simply false. Tennessee has expanded its capacity into Connecticut by 30% in the last 5 years alone, has currently on file an application to increase service to one

Connecticut customer (by 16%) and to 9 other New England customers. The other Connecticut companies, while given the option, chose not to participate in this project. Additionally, Tennessee has presented firm proposals to the Connecticut companies to expand by an additional 33% percent.

Question 3

When Tennessee Gas applies for a new pipeline with FERC, are there significant delays and difficulties in getting applications approved?

Response

In general, Tennessee has been successful in obtaining certification of its expansion projects within a reasonable time. As noted above, Tennessee received FERC authorization for each of its recent expansion projects which have expanded capacity by over 15% percent to the Northeast region. Tennessee -- along with every other pipeline -- has, of course, occasionally been frustrated with slow FERC processing of applications. These delays can be caused by a number of factors, and do not merely indicate red tape. For example, where the environmental effect of a project may be unusually significant, FERC staff devotes greater time and effort to identification of alternate routes and methods to mitigate construction impacts. Similarly, a project in which project risks are shifted directly or indirectly from project sponsors to firm residential customers -- whether served by the project or not -- generally requires greater regulatory scrutiny to assure that market risks are reasonable and their allocation is fair. Some projects become delayed because of the time required to examine whether the project really is superior to competitive alternatives. Some projects have been slowed because changes in the marketplace and in FERC regulation have happened so fast that all participants -- customers, pipelines, and agency -- are uncertain of whether and how the project must be restructured. Tennessee has found, however, that the best way to keep a project on track is to demonstrate to FERC that the pipeline capacity is necessary, economic, and superior to alternatives, and to respond directly to legitimate environmental concerns.

Question No. 4

When your company learned that representatives of Iroquois had a private conversation with the staff of FERC regarding its application, what was your reaction? Does this type of communication occur between Tennessee Gas and FERC?

Response

Tennessee was not at all surprised to learn that representatives of Iroquois had conversations with members of the FERC staff regarding Iroquois' application. Communications with FERC technical and environmental staff are routinely held to permit applicants to determine the status of their proposals, to enable the FERC staff to obtain supplemental information essential to a better understanding of applicants' proposals, and for other legitimate purposes. [See 18 CFR §385.2201.]

Tennessee was distressed, however, that Iroquois had proposed to FERC a detailed set of procedures that were designed to achieve the prompt approval of Iroquois' application and to defeat the procedural rights that had been requested by Tennessee and other opponents of the Iroquois project. In particular, Iroquois' proposed procedures were tailored (1) to include the optional expedited certificate ("OEC") procedures that Tennessee and other parties in the case had opposed, (2) to exclude the evidentiary hearings on environmental impact that had been requested by other parties, and (3) to limit the scope of FERC and ERA hearings on the issues of the need for gas and the need for the proposed new pipeline.

Because Iroquois' proposed procedures would have undermined Tennessee's rights to a full and fair hearing on the Iroquois project and raised issues of major concern and importance to Tennessee and other affected parties in the case, Tennessee decided to ask the FERC for an opportunity to comment on these procedures. The FERC subsequently advised Tennessee that such comments were unnecessary because the procedures proposed by Iroquois were not under consideration by the Commission.

Tennessee Gas Transmission
A Tenneco Company

Tenneco Building
P.O. Box 2511
Houston, Texas 77001
(713) 757-2131

August 13, 1987

Mr. Philip T. Ashton
Senior Vice President and General Manager - Gas Group
Northeast Utilities
P. O. Box 270
Hartford, Connecticut 06141-0270

Dear Phil:

Thank you for your letter of July 17, 1987 in response to our meeting of July 16, 1987 in which we made a definitive offer to provide the Connecticut LDC's with a transportation service to deliver 56 MMcf/D of Canadian gas to new Connecticut markets. While we did not reach a consensus, progress was made in defining the markets which would support added pipeline capacity to Connecticut. However, your characterization of our offer as inadequate is disappointing , since we feel that the lower costs to your ratepayers and lower risks associated with our expansion proposal would provide a superior means for transporting gas contracted from Canada.

We are prepared, as you requested, to reconsider increased transportation volumes, over those proposed in our July 16th offer to Connecticut. As we emphasized in our meeting, our proposal to transport the 56,000 DTH, was based on our analysis of the market need in your region. Recognizing that our market projections are well below yours, we are ready to meet at your earliest convenience to further define these needs in an effort to reach a consensus on this issue. To reevaluate our projections, our technical personnel would like to work with yours to evaluate gas penetration levels in your firm residential and commercial markets, specific geographic growth areas and the impact of conversion and conservation in your market areas. Once again, the existing power plants sector which provides off peak loading of pipeline capacity is critical to the economics of this project. It is essential that loads be committed to gas burning capability as part of an expansion in pipeline capacity for Connecticut.

The preceding paragraph addressed your first two questions. The remaining responses follow:

Cost Sensitivity Of Expanding Into Connecticut

In our presentation, we stated that the optimum facility expansion level to Connecticut on TGP was in the 75-80 MMcf/D range. To further illustrate this optimum level, I have used the following data, developed prior to our presentation, to show the approximate unit costs to expand from Niagara to Connecticut via the 200 line:

Mr. Philip T. Ashton
August 13, 1987
Page Two

INCREMENTAL VOLUME (MMCF/D)	DIRECT COSTS (MM $1989)	UNIT COST $/MCF
30	25	835
55-60	38	665
75-80	50	645
110	83	754

As the above numbers illustrate, the optimum level of 75-80 is only slightly less expensive than the unit facility costs determined for delivering the identified market level of 56 MMcf/d.

Canadian Transportation Costs

One of the difficulties for both Tennessee and the LDC's in fully evaluating all alternate routes in transporting Canadian gas from the wellhead to the end-user is the lack of definitive estimates of the costs of transporting the gas to various delivery points on the U.S. - Canadian border. Based on TransCanada's June 1987 facilities applications now pending before The Canadian National Energy Board, the difference in unit cost to deliver gas to Niagara versus Iroquois is minimal. In addition, there is some risk that an additional charge will be assessed for deliveries at the high (1440 psig) Iroquois delivery pressure, compared to 700 psig at Niagara. Tennessee feels that it is the responsibility of the parties contracting with the Canadian suppliers to work with TransCanada to fully explore the costs of all transportation alternatives open to you. However, in any case, Tennessee would be more than willing to sit down with TransCanada and the Connecticut companies to further define the Canadian transportation costs.

Transferring Export Licenses In Canada

The need to transfer your export licenses from the Iroquois import point to the Niagara import point does not pose any significant obstacles to Tennessee's proposal. Recent experience suggests that Canadian authorities and shippers view the selection of an export point to be open at least until construction of facilities "locks in" an export point. This gives Canadian exporters flexibility to move gas to the projects and export points which are economically viable and promise to flow gas in the relatively near term. Based upon representations to the National Energy Board that the Iroquois Project would be in service in 1988, for example, the Board transferred a substantial portion of the volumes now destined for Iroquois from the originally licensed Niagara export point. Tennessee believes the Board and the suppliers would look favorably upon a request to transfer your volumes back to Niagara, because our proposal is more likely to lead to flowing gas volumes more quickly and more economically than is the Iroquois Project.

Timetable To Construct The Connecticut Project

Tennessee's proposed transportation project can be put together in time to meet a 1989 in service date if we can reach a prompt agreement on volumes, costs, rate design and contract terms. A proposed construction schedule to meet this timetable would consist of the following key dates:

TASK	**DATE**
Tenneco Board Approval	November, 1987
FERC Application	December, 1987
Completed FERC Environmental Evaluation	December, 1988
Receipt Of FERC Certificate	December, 1988
Complete Purchase Of All Major Materials	May, 1989
Complete Acquisition Of All ROW And Permits	June, 1989
Begin Construction	June, 1989
Complete Construction	October, 1989
In-Service Date	November, 1989

Mainline And Lateral Cost Estimates

As you requested, I have summarized in Attachments I and II the facilities detail involved in the 78.5 MMcf/D expansion case and the detailed cost estimate for the 11.5 mile, 16-inch New Haven lateral, respectively. I have also attached a map outlining the proposed route Tennessee has selected for the New Haven lateral. The reason for the relatively low cost on a per mile basis for laying this pipeline results from the use of existing power line and railroad right-of-ways for the majority of the 11.5 miles. The selection of this route limits the amount of "virgin" right-of-way required and minimizes the environmental impact. Tennessee's Engineering personnel have reviewed the proposed cost estimate and feel confident in the $577,000 per mile unit cost.

Rate Assumptions

The rates that were provided in our July 16 presentation were based upon assumptions that would allow an "apple" to "apple" comparison with your other alternatives. These assumptions are as follows:

- Two part modified fixed-variable rate design, with the commodity rate designed on an 80% load factor basis.
- Rates are incremental, based on the RP85-178 settlement cost of service methodology revised for the new tax laws.

- Rates are based on a three year average beginning 11/1/89.
- Rates are exclusive of fuel.

The FERC's recent order on Boundary has provided Tennessee further insight as to what type of two part rate design FERC will approve. Tennessee would propose to adjust the rates for the Connecticut project to reflect the rate design in FERC's recent order.

Impact On 300 Line Operations and Lateral Requirements

As explained in our presentation, Tennessee can maintain adequate and secure service into your region based on the facilities we have proposed. The incremental expansion, as proposed, via the 200 line will achieve a balance of deliveries into Connecticut between the 200 line from the North and the 300 line from the West. While this will definitely require a change in operating conditions on Tennessee's system, it should actually increase our ability to utilize compression at Station 261 to maintain adequate pressures in Connecticut. In direct response to the last question in your letter, no lateral costs or improvements are required in Connecticut other than the New Haven lateral, based on the four delivery points assumed in our study; North Haven, New Britain, Bloomfield and East Granby. However, upon further definition of the market to be serviced by a Tennessee transportation project and a geographic identification of where the Connecticut companies want the transportation volumes delivered, Tennessee will provide all lateral improvements and costs estimates that may result.

As a final note, I would like to address several other matters raised in your letter. Tennessee's position, both publicly and privately, has always been consistent regarding its opposition to the Iroquois project and its unwillingness to commit new and existing facilities to the transportation of Iroquois volumes. Stated simply, we believe that the market need for an incremental 350 MMcf/D on an annual basis in the New Jersey/New York/Connecticut region as a whole has not yet been justified. While we remain committed to installing new pipeline capacity into Connecticut, what we ask is that the Iroquois participants sit down with us, discuss, identify and support the market needed to be served. Some of the Iroquois participants have been, up to now, unwilling to do this. As you know, we have an obligation both to our shareholders (whose entire return on equity would be at risk on this incremental investment) and to our other customers (to whom substantial costs would be shifted if a projected market did not materialize) to assure ourselves of adequate market to support commitments for our customers. In addition, the needs beyond pure incremental supply, such as supply diversity and operating flexibility need to be identified for each company. Once needs can be mutually agreed upon Tennessee would be willing to work with you to develop whatever transportation alternative makes the best sense in terms of costs, supply security, diversity and flexibility while minimizing any adverse environmental or economic impact associated with a pipeline expansion. If following the implementation of an initial transportation project, the market growth can support further expansions, then Tennessee is ready and willing to build the needed capacity. Tennessee has shown its commitment to serving the market growth in the New York/New England region by expanding its system, since 1981, by 164,000 DTH into New England and 87,000 DTH into New York. This represents an increase over our 1981 capacity of 32% in New England and 16% in New York. Together, these expansions represent a commitment by Tenneco of $180 million.

In this respect, we cannot agree with your suggestion that our proposal is "a special deal for Connecticut alone with no benefits to others." It is true, of course, that our offer was tailored to meet the needs of the Connecticut market at substantial savings to you and your customers. At the same time, however, we also plan to continue working with other Iroquois participants to develop projects to meet their particular needs.

In summary, we are anxious to move forward with our proposal to expand service to our Connecticut customers. Since the Connecticut companies are committed to their goal of providing the best and most economic service to their customers, then we feel there should be subsequent negotiations with Tennessee on a Niagara to Connecticut project. As we have repeatedly shown, our project on a per unit cost basis is less expensive than an Iroquois option. Once you have had an opportunity to evaluate this response, please give me a call so we can get started resolving the remaining issues.

Sincerely,

James R. Keys
Vice President
Canadian/International Energy

0283k
Attachments
cc: R. P. DeGeeter
V. H. Frauenhofer
J. S. Filbert, Jr.
J. P. Healy, Sr.
J. H. Larson
J. J. Smith
L. G. Garberding
D. T. Ellis

ATTACHMENT I

TENNESSEE GAS PIPELINE
78,500 MCFD EXPANSION

Facilities	Direct Cost
Mainline Loops	
1. 30" O.D. x 1200 psig pipeline, Niagara River Crossing, MLV 230B-107 to MLV 230B-108, Lincoln County, Ontario Canada, Niagara County, New York, USA	
$4,308,000 Connecticut Allocation	$ 1,316,000
2. 30" O.D. x 1200 psig pipeline loop from MLV 230B-104 to M.P. 230B-105+5.0, Erie and Niagara Counties, New York	
13.01 miles of 30" Pipeline	12,964,000
3. 30" O.D. x 900 psig pipeline loop from MLV 219 to M.P. 300-1+1.11, Mercer County, Pennsylvania	
1.11 mile of 30" Pipeline	1,548,000
4. 30" O.D. x 780 psig pipeline loop from MLV 231 to MLV 232, Wyoming County, New York	
10.78 miles of 30" pipeline	7,488,000
5. 30" O.D. x 780 psig pipeline loop from MLV 233 to MLV 234, Livingston County, New York	
9.45 miles of 30" pipeline	7,249,000
6. 30" O.D. x 780 psig pipeline loop from MLV 242 to M.P. 242+3.53, Onondaga and Madison Counties, New York	
3.53 miles of 30" pipeline	2,589,000
7. 30" O.D. x 780 psig pipeline loop from M.P. 253+6.85 to MLV 254, Rensselaer and Columbia Counties, New York	
4.58 miles of 30" pipeline	3,802,000
8. 30" O.D. x 780 psig pipeline loop from M.P. 260+2.91 to MLV 261, Hampden County, Massachusetts	
2.0 miles of 30" pipeline	2,302,000
TOTAL	$39,258,000

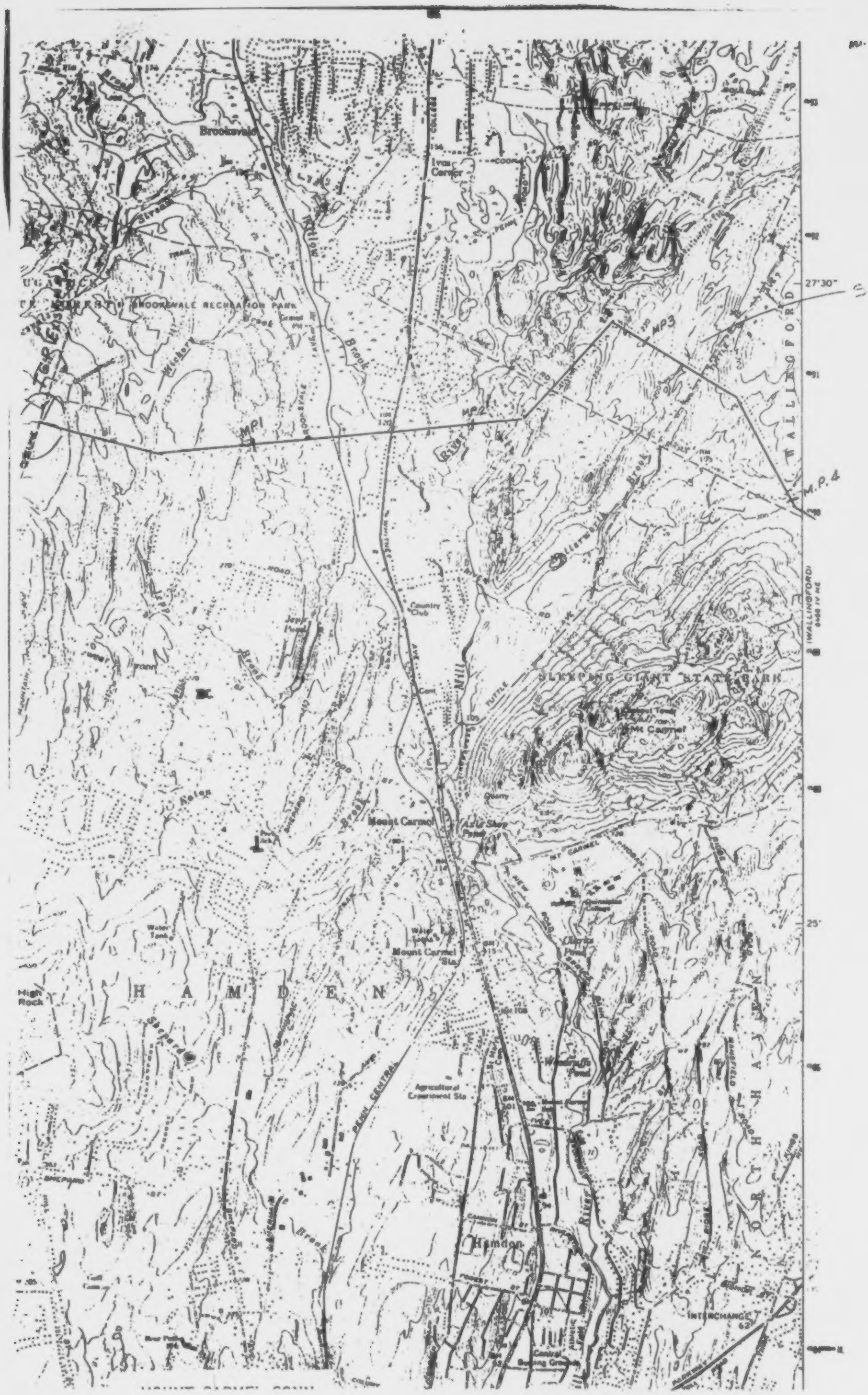
ATTACHMENT II

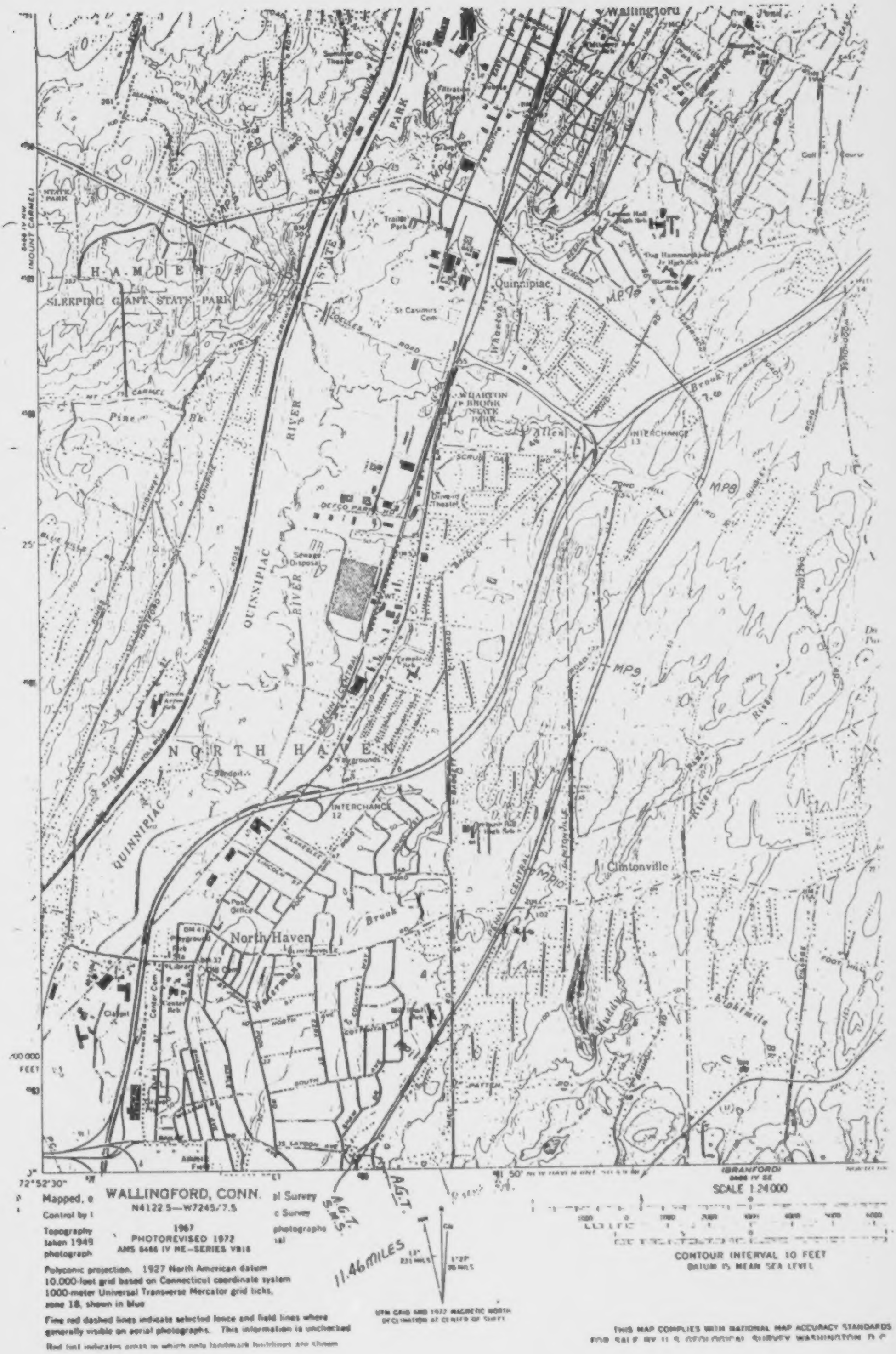
NEW HAVEN LATERAL

COST ESTIMATE DETAIL

11.5 MILES - 16" PIPELINE

ITEM DESCRIPTION	COST (1989$)
1. R-O-W and Preliminary Survey	$1,101,000
2. Materials - 16" pipeline, coating, valve assemblies	1,847,000
3. Installation Cost	3,087,000
4. Performance Bond and Testing	129,000
5. Dual 8" Hot Taps	52,000
6. Company Installation and Inspection	267,000
7. Contingencies	154,000
TOTAL DIRECT COST	$6,637,000


Brookvale
Ives Corner
BROOKVALE RECREATION PARK
Gravel Pit
MP1
MP2
MP3
M.P.4
27'30"
WALLINGFORD
Country Club
SLEEPING GIANT STATE PARK
Mt Carmel
Mount Carmel
Quarry
Water Tank
Mount Carmel Sta
25'
HAMDEN
High Rock
Agricultural Experiment Sta
Hamden
Central Burying Ground
INTERCHANGE 62
WALLINGFORD


Wallingford
HAMDEN
SLEEPING GIANT STATE PARK
Quinnipiac
St Casimirs Com
WHARTON BROOK STATE PARK
Allen
INTERCHANGE 13
QUINNIPIAC RIVER
Sewage Disposal
NORTH HAVEN
Fairgrounds
INTERCHANGE 12
North Haven
Clintonville
MP 5
MP 6
MP 7
MP 8
MP 9
MP 10
Muddy River
Pine Bk
72°52'30"
WALLINGFORD, CONN.
N4122.5—W7245/7.5
1967
PHOTOREVISED 1972
AMS 6466 IV NE—SERIES V816
Mapped, e
Control by t
Topography taken 1949 photograph
al Survey
c Survey
photographs
ial
Polyconic projection. 1927 North American datum
10,000-foot grid based on Connecticut coordinate system
1000-meter Universal Transverse Mercator grid ticks, zone 18, shown in blue
Fine red dashed lines indicate selected fence and field lines where generally visible on aerial photographs. This information is unchecked
Red tint indicates areas in which only landmark buildings are shown
A.G.T.
A.G.T. S.M.S.
11.46 MILES
UTM GRID AND 1972 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
(BRANFORD)
6466 IV SE
SCALE 1:24000
CONTOUR INTERVAL 10 FEET
DATUM IS MEAN SEA LEVEL
THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, WASHINGTON, D.C.

HOUSATONIC VALLEY ASSOCIATION
P.O. BOX 28, CORNWALL BRIDGE, CONNECTICUT 06754
(203) 672-6678

August 13, 1987

Dear Senator Weicker,

The Housatonic Valley Association thanks you for the hearing that you held in Connecticut regarding the proposed Iroquois Gas Transmission System pipeline. It was indeed important to convey through you and your staff to the Congress, HVA's position in opposition to this proposal.

In answer to your follow up questions to be included in the testimony, we submit the following.

Question: 1. Your Association has spent considerable time and effort in studying and responding to the Iroquois proposal. What has been the response to your concerns and detailed comments?

Answer: Citizens and elected officials in Connecticut have voiced concerns similar to HVA's based on statewide issues. Indeed, the current position of Connecticut State officials is virtually identical to HVA's, i.e., that the need for the gas and for this particular transportation system must be demonstrated before any certificate is issued. Only reliable evidence, not regulatory presumptions, can justify a project of this magnitude.

From many citizens in New York state a similar embracing of HVA's concerns has been evident.

HVA has had no direct response from FERC. We would note that many of HVA's concerns were addressed in FERC staff's 82 questions to Iroquois. Iroquois's responses to the more significant questions were evasive and inadequate.

The sole response from Iroquois and its members in Connecticut has been to cast HVA in the role of obstructionists.

Question: 2. You suggest some very reasonable ways of considering various pipeline proposals in terms of impact, need, and alternatives. Why isn't there agreement all around to not use an expedited procedure to consider the Iroquois application?

Answer: There is near unanimous agreement from those opposed to the Iroquois proposal that FERC's normal Section 7 procedures be applied to the Iroquois application. Sponsors of Iroquois favor the expedited procedure because it eliminates their usual burden to prove with reliable evidence, subject to cross examination, that the pipeline is needed and is the best alternative delivery system.

Question: 3. It appears that your Association and other groups are having to use a lot of resources to voice your concerns. Do you think it should be necessary for the average citizen to put forth so much effort to protect their environment and community?

Of course citizens and citizen groups should not be forced to expend substantial resources. Nevertheless, on occasion, and this is one, it is necessary in order to protect our region's environment. HVA's existence speaks to the need of interested citizens to watchdog private and governmental activities as they impact the environment and communities. Only recently has consideration of the environment begun to have a place of significance in development processes.

HVA has expended substantial resources in its efforts regarding the Iroquois proposal over the last 13 months. This effort represents more than one third of our total operating budget. Our environment, when threatened, deserves HVA's support and intervention.

This type of proceeding highlights the need for intervenor funding before Federal agencies, as has been frequently proposed for FERC, but never successfully implemented.

4. Have you had the benefit of discussing with FERC the procedures to be used in considering the Iroquois application? Would you like to, since it seems that procedures are as important as the substance of the Iroquois proposal?

No, we have had no discussions with the Commission regarding procedures for the Iroquois application. Indeed, direct contacts with the Commissioners and their immediate staff is, we feel, inappropriate since the decision as to proper procedures for the Iroquois proceeding is currently under consideration. We have suggested in our filings, testimony and scoping comments, that normal Section 7 procedures must be used for the Iroquois application. We believe that the Commission should promptly and affirmatively seek suggestions from all parties and the public.

Sincerely,

Bob Moeller

Robert Moeller
Environmental Consultant

ABRAHAM RIBICOFF

July 13, 1987

The Honorable Lowell P. Weicker, Jr.
United States Senate
Washington, D. C. 20510

Dear Lowell:

I have noted that you are to conduct hearings in Newtown on July 20, 1987 concerning the issue of the projected Iroquois pipeline. My commendations to you for your leadership and deep commitment in assuring that we save our beautiful state of Connecticut from this unnecessary incursion. Regretfully, I will be in California on that day and cannot be with you personally.

I remain unalterably opposed to the pipeline through any route in our state of Connecticut. As you know, I testified before Chairperson Hesse of the Federal Energy Regulatory Commission in Torrington, Connecticut on October 28, 1986. My testimony applies not only to the original route, but any alternative that may be suggested. Please register my opposition. I would appreciate your incorporating my testimony of October 28, 1986 in the record of the hearing.

I am also enclosing Comments of the State of Connecticut and the Citizens Monitoring Group on the Scope of the Draft Environmental Impact Statement.

Sincerely,

Abraham Ribicoff

AR:bwr
Enclosures

Federal Energy Regulatory Commission

In the Matter of

IROQUOIS GAS TRANSMISSION SYSTEM CP 86-523-000 and
CP 86-524-000

Testimony on Scope Of Proposed Draft Environmental Impact Statement

Submitted by Abraham A. Ribicoff, Chairman
On Behalf of the Governor's Iroquois Pipeline
Citizens Monitoring Group

My name is Abraham A. Ribicoff. I am appearing here today as Chairman of the Governor's Iroquois Pipeline Citizens Monitoring Group, having been named to that position by Governor William O'Neill. As a former Governor and United States Senator from Connecticut, I am aware of the sensitive concerns of the citizens of this State which arise from a proposal of this nature and of the governmental complexities related to dealing with it. As a resident of Connecticut, I know and love the great beauty and character of the area affected by the proposed pipeline and how much the protection of the area means to local officials and all our people

Given the serious detriment of this pipeline proposal, and the breadth of potential impact, I welcome return to the service of Connecticut as Chairman of the Governor's Citizens Monitoring Group, composed of 21 state, municipal and civic leaders.

We are grateful and thank Chairperson Hesse and other officials of the Federal Energy Regulatory Commission who have come to Connecticut to hear our concerns.

Many of the comments which will be made use a limited definition of "environment."

The environment meaningfully includes our natural resources and our plant and animal life. However, it includes much more.

What is often forgotten is that "environment" includes "human environment" -- our quality of life. It is this quality that is so important for the DEIS to consider -- and to protect.

Considering the many thousands of people who are deeply upset about this possible pipeline in Connecticut, the proposal will have a deep impact upon the human environment. This impact must be considered.

Because of Governor O'Neill's charge to the Citizens Monitoring Group to "advise the Governor on matters related to all alternative proposals for delivery of additional natural gas to Connecticut users," our group will be especially interested in the discussion in the draft Environmental Impact Statement of alternatives. The National Environmental Policy Act Regulations require a rigorous evaluation and discussion of all reasonable alternatives, including the alternative of taking no action. Alternatives to the Iroquois System exist. The map presented by Governor O'Neill sets forth five other proposals which would serve all or part of the same area to be served by Iroquois. Each of the five alternatives is an augmentation of an existing pipeline system. They contrast sharply to Iroquois' need for 355 miles of new construction. While we are not advocating one system over another and are not conceding that any new gas transmission system is needed, though we are studying this, this map clearly demonstrates that alternatives to Iroquois exist. We are pleased that FERC has stated that the DEIS will analyze various alternative routes, which we trust are those that Iroquois is proposing in addition to its original route, as well as alternatives utilizing the existing interstate gas pipeline systems in the northeast to transport all or part of the proposed Canadian gas volumes. Indeed, we don't feel this should be limited to Canadian Gas alone.

Only FERC can make a complete study of all alternatives, and only through study of all alternatives can the best decision be reached with regard to the delivery of natural gas to our State. An Environmental Impact Statement which does not include study of all alternatives should be considered inadequate in satisfying the requirement of the National Environmental Policy Act and Regulations. Since the Environmental Impact Statement must also include the no action alternative, it would seem FERC must also evaluate need for additional gas and for this pipeline as part of its environmental study.

National Environmental Policy Act Regulations state that "when an Environmental Impact Statement is prepared and economic or social and natural or physical environmental effects are interrelated, the Environmental Impact Statement will discuss all of these effects on the human environment." For a project such as the Iroquois Pipeline, discussion of the economics is also entirely essential in satisfying the requirements of the National Environmental Policy Act.

It is difficult to comment comprehensively and in depth on environmental matters until we all have ample time to carefully study any and all routes shown in the Iroquois Environmental Report, although many are here today to cite various environmental concerns already apparent. You can be assured we will study the Iroquois Report as soon as possible and comment further to FERC. In addition to concern over the multitude of individual environmental impacts at given points, there is great concern over the cumulative impact of a project running through the State of Connecticut. Of particularly great concern is the aesthetic impact of a cleared corridor on our cherished state.

There are so many material questions of fact involved in the Iroquois application that FERC should hold evidentiary hearings in the case so that justice and equity could be done.

This year we are celebrating the 350th Anniversary of the founding of our beloved Connecticut. The region affected preserves the continuity of these three and one-half centuries: the past, present and the future to posterity. Madam Chairperson, don't let the Iroquois Pipeline destroy this 350-year old heritage.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

In the Matter of

IROQUOIS GAS TRANSMISSION SYSTEM

CP 86-523-000 and
CP 86-524-000

Supplementary Comments to Oral Testimony on Scope of Proposed Draft Environmental Impact Statement

Submitted by

Governor's Iroquois Pipeline Citizens Monitoring Group

Background

These comments on the proposed scope of the DEIS are being submitted by the Citizens Monitoring Group for the proposed Iroquois pipeline, a group of citizens in Connecticut appointed by Govornor William O'Neill and chaired by former Governor and U.S. Senator Abraham A. Ribicoff.

In establishing the Group, Governor O'Neill announced his opposition to Iroquois' proposal for a pipeline and stated:

> This particular proposal was developed too hastily. At stake is a major construction project that would cut a significant swath across our state. Its potential environmental impact is staggering, and its necessity is questionable. It is clear that the utility simply has not made its case."

Not only has the pipeline been opposed by the Governor, it has been opposed by Connecticut Senators and Congressmen.

We submit that this proposed 355 miles of pipeline, many of which pass through Connecticut, will do such damage to our State as to require the most careful analysis of its need and of the alternatives.

Bases for Comments

These comments are submitted in accordance with the FERC Notice of September 3, 1986. They are offered in accordance with The National Environmental Policy Act ("NEPA"), 42 USC 4321 et seq., FERC'S regulations thereunder, 18 CFR 157.206(d) (incorporating various Federal environmental statutes; 18 CFR 157.206(d)), and the Regulations of the Council on Environmental Quality, 40 CFR parts 1500-1508. These latter regulations are binding upon FERC in accordance with Andrus v. Sierra Club, 442 U.S. 347 (1979).

- 0 -

Accordingly, the Governor's Citizens Monitoring Group offers the following suggestions as to the scope of the Draft Environmental Impact Statement.

1. Need Must Be Defined and Analyzed

The need for the proposed pipeline must be addressed. Unfortunately, it was not addressed, other than in passing, in Iroquois' application. Iroquois, instead, relied upon the so-called "Fast Track" procedure of FERC, 18 CFR 157.100, which presumes that:

> "The proposed new service is or will be required by the present or future public convenience and necessity." (18 CFR 157.104(c) (3))

Thus, the only showing of necessity provided by Iroquois in its application was nominal and conclusionary. In its entirety, the showing of necessity read as follows:

> "The historic gas markets in the residential, commercial and industrial sectors in the Northeast are experiencing significant growth. In addition, new gas markets are emerging because of the proliferation in that region of electric generating facilities using highly efficient combined-cycle technology, co-generation facilities and conversions of existing power plants from fuel oil to gas usage. Thus, there is growing need in the Northeast for new, diverse long-term energy supplies and for additional gas pipeline term energy supplies and for additional gas pipeline capacity to meet the load growth." (Applic. page 13)

As can be seen, Iroquois has offered FERC not one single fact, only conclusions.

By contrast NEPA requires that need be examined. The CEQ Regulations provide that an entire section of the EIS be directed to the "Purpose of and Need for [the Proposed] Action," 40 CFR 1502.10(d). This requirement is amplified:

> "The statement shall briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action." (40 CFR 1502.13)

This is a logical requirement, for until the need is understood one cannot properly focus upon whether the proposed action will satisfy that need or possibly even be more than is necessary to supply the need. If the latter, then there would be no justification for the ensuing environmental damage.

Otherwise phrased, there must be a balance between the need and the solution.

Thus, an in-depth analysis of the supposed need, and of alternative methods of supplying that need, to the extent that it truly exists, must be made. Until the need is clearly defined, no criteria exist for evaluating the proposed action - here a 355-mile pipeline.

Even more important is the protection of the rights of our citizens. If this project is approved, eminent domain over the property of Connecticut's citizens would follow. It would be unforgivable were this to occur in the absence of not only a showing, but actual proof of need.

2. Alternative Aspects of Need Must Also Be Examined

In order to properly appraise the need, several aspects of it must be examined:

1. What is the total demand for gas? How is it presently being satisfied; and how will it be satisfied if the proposed pipeline is not built? An analysis of demand must, of course, include consideration of the prices at which the demand would exist and of the extent to which the new gas would simply be replacing existing gas.

2. To what extent will the proposed pipeline serve the defined need? To what extent will it satisfy it in the areas of demand?

3. If the greatest demand is in New York and New Jersey, would not a more direct route serve that need more efficiently?

4. Can the need be satisfied by the use of existing pipelines? There are two existing pipelines passing through the State of Connecticut at the present time, owned by Algonquin Gas Transmission Co. and by Tennessee Gas Transmission Line Co. In addition, there are numerous distribution lines throughout the State. It should be determined now whether these lines are capable of supplying gas to satisfy whatever need, if any, is found to exist.

5. Related to this point, it should be noted that other pipeline companies are opposing the present application, asserting that there is no need or that they are perfectly capable of satisfying that need.

6. Need should also be analyzed from the aspect of alternative sources of energy.

3. There Is A Need for A Comprehensive Impact Statement

In addition to the Iroquois proposal and alternate routings, there are various other proposals which would serve all or part of the same area to be served by Iroquois. These include:

Canadian Gateway

Iroquois

Transco/ANR (Erie - Transylvania)

PennEast

Tennessee Proposal (October 20 letter to FERC)

NFG Expansion

Since the "need" can be satisfied only once, and then it ceases to be a need, any proper evaluation of alternatives must consider these proposals. If they are not now considered with the Iroquois proposal, they will be mooted - and never considered.

This is the classic situation demanding the preparation of a comprehensive environmental impact statement to consider total need and alternate proposals for solving that need at one time.

The CEQ Regulations provide for consideration together of parallel actions, such as these alternative sources of supply. An agency is to consider at one time:

> (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement...
>
> (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.
>
> (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement." (40 CFR 1508.25)

Public Service Commission Of West Virginia

Michael D. Greer
Chairman

201 Brooks Street, P. O. Box 812
Charleston, West Virginia 25323

August 21, 1987

The Honorable James McClure
Ranking Minority Member
Committee on Energy and Natural Resources
U. S. Senate
SD 310
Dirksen Senate Office Building
Washington, DC 20510

Re: H.R. 2884
Uniform Regulatory Jurisdiction Act of 1987

Dear Senator McClure:

We are aware that Shenandoah Gas Company (Shenandoah), a gas utility operating within the State of West Virginia, is seeking federal legislation to clarify that the West Virginia Public Service Commission has regulatory jurisdiction over the rates, terms and conditions of local transportation service offered by Shenandoah and we urge your support for passage in 1987.

Shenandoah is, for all intents and purposes, a local gas distribution company. Incident to the local distribution of gas, its facilities happen to cross jurisdictional boundaries to serve customers in Virginia and West Virginia. The crossing of state boundaries means that under current law any transportation service offered by Shenandoah to its customers is, technically, in "interstate commerce" and therefore, subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC). The transportation activities of virtually all other 1400 local distribution companies nationwide are regulated by their State commissions. Less than 10 are similarly situated to Shenandoah.

The West Virginia Public Service Commission had held extensive hearings on the subject of local transportation of customer-owned gas and has taken steps to implement mandatory contract carriage within West Virginia. As the state body mandated to protect the public interest of all West Virginia consumers, we believe that Shenandoah's transportation, as well as its retail sales, should be subject to our jurisdiction.

Stimulated by action at the federal level, local transportation of customer-owned gas is a significant new service being offered by gas distribution companies. With the notable exception of Shenandoah, we regulate transportation by all local distribution companies providing service in West Virginia. The legislative amendment proposed by Shenandoah simply recognizes that transportation by a distribution company is a local matter and rightly under the jurisdiction of the state commission in which the gas is consumed.

Your efforts to eliminate the confusion over the regulatory jurisdiction are strongly supported and appreciated.

Sincerely yours,

Michael D. Greer

MICHAEL D. GREER
Chairman

MDG:gf

TOWN OF NEW MILFORD

PHONE 354-8446 P.O. BOX 480 NEW MILFORD, CONNECTICUT 06776

Office of CONSERVATION COMMISSION

July 23, 1987

Senator Lowell Weicker
ATTN: Tim Osborne
225 Russell
Senate Office Building
Washington, D.C. 20005

Dear Senator Weicker:

The New Milford Conservation Commission wishes to call your attention to their statement made to the Federal Energy Regulatory Commission in regard to the Iroquois Pipeline and request you enter it in your hearing testimony. Our position in regard to the need for this invasion of our town has not changed.

Very truly yours,

Helen P. Marx
Chairman
Conservation Commission

TOWN OF NEW MILFORD

PHONE 354-8446 P.O. BOX 480 NEW MILFORD, CONNECTICUT 06776

Office of CONSERVATION COMMISSION

February 17, 1987

Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Filing Room 3110
Washington, D.C. 20426

RE: Iroquois Gas Transmission System : Dockett #CP86-523-000
: #CP86-524-000

PUBLIC COMMENT

Dear Sirs:

The New Milford Conservation Commission is composed of unpaid citizens of New Milford who have diligently worked over the years to advance the interests of our citizens in the areas of 22-26cc Preservation of Agricultural Land; 12-107E Classification of Land as Open Space; (P.L. 87-703) The King's Mark Resource Conservation and Development Project and other environmental issues.

Our record is impressive! We sponsored in 1965 the formation of Weantinogue Heritage, Inc., a land trust (12-107E) that presently owns 202 acres of land and has 212 acres under conservation easement in New Milford alone which will be affected directly by the proposed pipeline. This organization presently holds in Litchfield County over 70 preserves covering in excess of 1500 acres.

Working under (P.L. 87-703) with the citizen's group "Friends of Merryall" we sponsored the epochal King's Mark Environmental Review report of 1986. We also should call your attention to another King's Mark report dated in 1976 for New Milford in the Boardman, Long Mountain area.

In regard to 22-26cc Preservation of Agricultural Land, in addition to other areas, the proposed pipelines in New Milford invade 2.50 miles of prime farmland. A significant amount of this mileage lies in the Sunny Valley Foundation, a non-profit corporation under the laws of the State of Connecticut committed to the improvement and preservation of agricultural and forestry, education, experimentation and an organization which we actively cooperate with and support.

The pipeline proposal strikes at the roots of other environmental endeavors in ways that we feel are unacceptable and totally shatters years of valiant effort of this Commission and our citizens.

Namely, its path through our Town of New Milford involves some of the following:

1. 2.34 miles of our wetlands. A natural resource vital to our future water supplies which is irreplaceable.

2. New Milford is a major river basin town and is fortunate to have a network of stratified drift aquifers that now supply and will supply our future citizens with high quality water. The pipeline route travels through 1 mile of these aquifers. To deliberately impose a pipeline that carries a potential hazardous contaminant into this fragile resource with the chances of error that exists in a man-made installation is an act that not only threatens its continued purity but would have irreversable effects on our water supply. Our mandate as a Conservation Commission is to protect the health, welfare and safety of our citizens and we cannot support a pipeline crossing aquifers. We submit a copy of Plate B, Part 1 and 2 of Bulletin 21 of the report "Water Resources Inventory of Connecticut", part b; Upper Housatonic River basin, prepared by the U.S. Geological Survey in cooperation with the Connecticut Department of Environmental Protection.

3. Invasion of 2.04 miles of soils that are shallow to bedrock. These areas will require blasting to achieve the depth the pipeline will require. The disturbance of these existing fractures and fissures will irrevocably influence our existing and future wells.

4. The routes of the proposed lines run through 2.11 miles of the steep slopes of our scenic town. Even the notion of this possible disruption of land with its attendant erosion problems being considered destroys the legacy that we have endeavored to secure for future generations.

5. As enounced in Weantinoge Heritage's statements "Our network of preserves in northern New Milford has ensured a bare minimum of unbroken woodland ranges for several species that have disappeared elsewhere in the suburbanized Northeast. Bobcats and goshawks are the best examples; and, even after construction is complete, increased access along the pipeline would be the "Straw that broke the camel's back" for these species." Add to them our colonies of wild turkeys to mention another of the varied species of wild life that our town's environment presently supports where the pipeline will definitely interfere with their habitat. Positive identification of two endangered species of flora "Chamaelirium luteum" and "Castillega coccinea" have been made at "Merryacres" on Bennett Road off Long Mountain Road where the route of the pipeline could destroy them as well as other endangered species that abound in the natural areas that the pipeline route invades.

Federal Energy Regulatory Commission
Iroquois Gas Transmission System
Dockett #CP86-523-000
#CP86-524-000

February 17, 1987
Page 3

6. At our Hill and Plain School the invasion of the proposed pipeline will negate any future use of the natural areas that exist on their property in their programs of using it as an "Outdoor Laboratory" for instruction of their students, in the many areas of nature study. The presence of a gas pipe contiguous to a school housing 600 of our children is a hazard that is not acceptable.

7. Public Health Code Regulation 19-13-B20a through r became effective on January 15, 1970, upon publication in the Connecticut Law Journal, January 13, 1970, with a five year grandfather clause, requiring one hundred percent space of any sub-surface disposal system for future use. The New Milford Health Department, "In the interest of public health and safety of its citizens," required all new building to have this space. This monumental task was accomplished and to our knowledge no other town in the state can claim that all buildings have a one hundred percent area in their design, filed at Town Hall from 1970.

This exemplifies the total commitment of all public bodies of the Town of New Milford in opposing the proposed pipeline.

Very truly yours,

New Milford Conservation Commission

H. Norton
Joseph Lillis, Jr.
Alice McAllister
Roger Richmond, Secretary
Helen P. Marx, Chairman

HPM/ar
CC: Governor,William O'Neil
Attorney General,Joseph Leiberman
First Selectman, Clifford C. Chapin
Town Counsel, Jeffery Sienkiewicz
Housatonic Valley Association
Housatonic Valley Council of Elected Officials
Stop the Pipe

STRATIFIED-DRIFT AQUIFERS

THE MOST IMPORTANT AQUIFERS IN THE BASIN AND THE ONLY ONES CAPABLE OF SUPPLYING LARGE AMOUNTS OF WATER FOR PUBLIC SUPPLY OR INDUSTRIAL USE. YIELDS OF A FEW INDIVIDUAL WELLS TAPPING THESE AQUIFERS EXCEED 1,000 GALLONS PER MINUTE. SATURATED THICKNESS SHOWN BY 10,40,80,120 AND 160 FOOT CONTOURS

TRANSMISSIVITY IN FEET SQUARED PER DAY

░

GREATER THAN 16,000

░

8000 TO 16,000

▒

2000 TO 8000

☐

0 TO 2000

▨

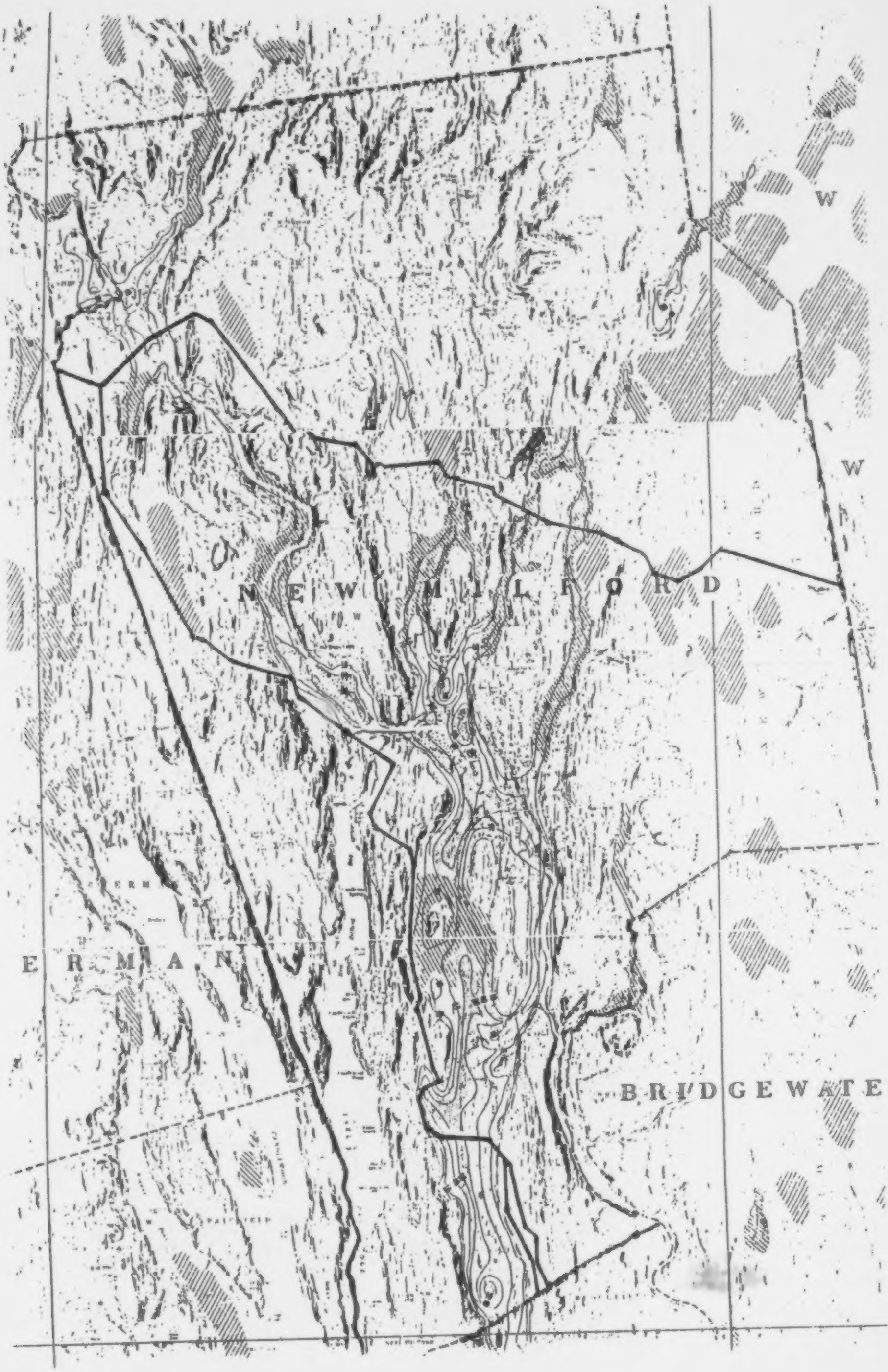
TRANSMISSIVITY NOT DETERMINED

▧

TILL AND BEDROCK

TILL, AN ICE-DEPOSITED MIXTURE OF CLAY, SILT, SAND, GRAVEL AND BOULDERS IS CAPABLE OF YIELDING ONLY SMALL SUPPLIES OF WATER TO DUG WELLS. AREAS WHERE THE TILL IS KNOWN OR INFERRED TO BE AT LEAST 40 FEET THICK ARE SHOWN BY A DIAGONAL LINE PATTERN.

CRYSTALLINE BEDROCK UNDERLIES THE ENTIRE BASIN. APPROXIMATELY 90 PERCENT OF THE WELLS TAPPING THIS AQUIFER ARE REPORTED TO YIELD AT LEAST 2 GALLONS PER MINUTE


W
W
N E W M I L F O R D
E R M A N
B R I D G E W A T E

LAKE WARAMAUG TASK FORCE, INC.
Sackett Hill Road, Warren, Connecticut 06754

July 16, 1987

Hon. Lowell P. Weicker, Jr.
U. S. Senator
303 Hart Senate Office Building
Washington, D.C. 20510

RE: Testimony to the Senate Energy Hearing
Report - Iroquois Gas Transmission System

For the past 12 years the Lake Waramaug Task Force (LWTF) has overseen the study, design, and implementation of a unique, comprehensive and successful lake management program. In recognition of the potential value of this program to other eutrophic lakes throughout the United States, the LWTF received an initial grant in 1979 from the U.S. Environmental Protection Agency (EPA). The value of this program is further demonstrated by the fact that the LWTF is currently working under the fourth amendment to this grant bringing the total EPA funding to $438,301.

The Task Force is a non-profit corporation, funding has been received not only by the EPA, but also by U.S. Geological Survey, Agricultural Stabilization and Conservation Service, the Soil Conservation Service, the State of Connecticut, corporate and foundation support. All of this funding has been matched by money raised by the Task Force--a remarkable record of over $500,000 coming from the local community. Approximately $2,000,000 has gone into this total lake water quality restoration project.

The LWTF was formed 12 years ago because the water quality in the lake was visibly deteriorating. Alarmed residents around the lake (3 towns) determined to do something to correct the situation. Two things became apparent: 1) the problem was not confined to Lake Waramaug and 2) that very little was known about lake restoration.

To date we have published the Lake Waramaug Watershed Management Plan (1978), a guidebook which the Connecticut DEP uses as a model for lake studies in this State. Our plan emphasizes the need to avoid adverse impact of soil disturbances in the watershed, and the necessity for reducing and containing erosion and sediment runoff through zoning, planning and inland wetland regulations.

Two hypolimnetic withdrawal systems have been constructed and are in their fifth season of operation, one of these is a discharge downstream and the other system returns the water to the lake and is unique in the world. There are several other restoration techniques which have been completed, i.e. large interflow channel through delta from main feeder brook, sedimentation catchment basins on feeder streams to the lake, shroeline and brook erosion site stabilization.

To sum it up we have created a comprehensive lake restoration program that provides an exceptional and unprecedented lake laborabory. The only one of its kind in the world. Research applicable to all lakes that stratify can and does take place here. Lake Waramaug is the most tested lake in the United States.

Our data bank is computerized and available to all people. We have factored in natural weather events from the 100 year storm to the seasonal wind and rain events. But never the threat of a pipeline! The proposed preferred route for the pipeline of the Irouqois Gas Transmission System goes through 5.3 miles (28,000 ft) of the Lake Waramaug watershed. Of this 3 miles (16,000 ft. are of special and critical concern, i.e. severe slopes, brook crossing, perched wetlands. Some areas defie known methods of erosion control. Lake Waramaug connot withstand an impact of this magnitude in its watershed--not only would Lake Waramaug suffer irretrievably but this base for lake restoration work would be doomed. All of this has been documented in our detailed comments on the proposed scope of services for the Draft Environmental Impact Statement on the Igoquois Gas Transmission System.

We started out twelve years ago to help our own lake and now we can help all lakes. One year ago we received the first threat of the pipeline invasion. We started again to protect the lake. As we learned more, one thing became very clear and it is extremely important to be part of any Energy Hearing Record. Action of this kind should never happen any where in the United State of America! If and when there is a demonstrated need for any kind of energy, then that need should be filled in the least environmentally damaging way.

Eminent domain is a right of a government to take private property for public use, it is not the right of a consortium (50% non-U.S.A.) for making financial gains and destroying irreplaceable public natural resources. Our lake restoration work has taught many of us a great deal. We will fight for our beliefs and one of these is Democracy.

Our final statement is on the work done to date by the Iroquois Gas Transmission System and the Federal Energy Regulatory Commission on the preparation of the required Environmental Impact Statement. When the EIS process began we were assured that there would be a comprehensive Environmental Impact Statement completed for the Iroquois Gas Transmission System proposed pipeline routes despite the fact that this application was filed under order 436 (so call "fast track").

In our view the work done to date shows us that there will not be a comprehensive Environmental Impact Statement. The Iroquois Gas Transmission System Environmental Reports both draft and final did not provide all of the information needed to complete a comprehensive Environmental Impact Statement. In our comments on the proposed scope of the Draft Environmental Impact Statement we cited numerous critical areas of information needed which had not been provided by the Iroquois Gas Transmission System. Shortly after our filing these comments on February 13, 1987 the FERC published a copy of its own 66 question list of requests for additional information from the Iroquois Gas Transmission System. The FERC cited in its request many of the items of information requested by the Lake Waramaug Task Force and the numerous other intervenors who provided comments on the scope of the Draft Environmental Impact Statement. Yet in response to these requests, Iroquois provided no new data. Its answer was in effect that new information either was not needed or could be provided later.

Without all the necessary information FERC staff can't complete a comprehensive DEIS. The FERC staff had indicated to the LWTF that it would be in the field to collect necessary information from our comprehensive data file on Lake Waramaug. To date no one has called or visited with such a request. Yet reports from FERC indicate that the DEIS may be "completed" in the late summer or early fall of 1987.

We feel that the record to date shows that this or any other major new gas pipeline project cannot be properly assessed on the expedited fast tract procedure. The Iroquois Gas Transmission System must be subjected to the normal full and lengthly review process which will permit both complete assessment of the need for the gas and the environmental impact of the pipeline.

Janet M. Bates

Janet M. Bates, Chairman

JMB:in

cc: William Gundling
Assistant attorney General
State of Connecticut
1 Central Park Plaza
New Britain, CT 06152

Iroquois

July 20, 1987

Response to Larry Kumins' Memorandum Dated April 10, 1987 Concerning the Demand for Gas In The State of Connecticut and the Iroquois Pipeline

EXECUTIVE SUMMARY

The Iroquois Pipeline is needed, among other reasons, to permit increased gas sales in Connecticut, meet design winter and peak day needs and stimulate competition. The memorandum prepared by Larry Kumins of the Congressional Research Service, entitled "Demand for Natural Gas in Connecticut and the Iroquois Pipeline Proposal," ("Kumins Memorandum" or "Memorandum") focuses on some but not all of these considerations. In particular, it makes no reference to design winter and peak day needs, which are critical factors in considering the need for the pipeline. While the Memorandum does discuss annual gas requirements and the competitive environment, its analysis of these matters is seriously flawed.

The Memorandum's forecasts suffer from a number of basic flaws:

-- The forecasts ignore the existing constraints on transmission capacity serving Connecticut. The two pipelines currently providing gas to the Connecticut market operate at full capacity for much of the year and, in fact, can meet only about two-thirds of the peak winter day requirements of the Connecticut LDC's. This unavailability of additional transportation capacity has been a significant limitation on growth in the Connecticut market.

-- The forecasts use historical data without taking into account the effects of weather on actual sales levels. Weather patterns are responsible for a significant part of the apparent "slowdown" in the rate of increase in gas sales during the latter years of the base period.

- The Memorandum does not take into account costs incurred by a home heating oil customer for electric hot water heating, cooking and clothes drying, nor does it consider historical data which strongly indicate that price differentials between fuel oil and gas are not dominant factors affecting net customer additions in the residential market.
- The forecasts overstate the importance of conservation as a limiting factor on market growth. Available data indicate that gas consumption per residential customer has been relatively constant during the 1980's.
- Although the Memorandum acknowledges that a single electric generating plant could utilize all of the gas to be transported to Connecticut on Iroquois, it nevertheless concludes that gas use for electric generation will be insignificant. This projection has already been proven incorrect by the recent conversion of two power plants to gas and the substantial volume of gas that they have consumed this year. Moreover, the forecasts project no gas use for cogeneration or combined cycle power generation, despite the substantial prospect for gas use for both purposes in the New England market.

As noted above, the Kumins Memorandum does not address Connecticut's need for gas in a colder than normal year or on peak days, although these are critical factors. The Connecticut LDC's are forecasting design winter deficits beginning in the 1990's, deficits which would be eliminated if the Iroquois Pipeline is built. Peak day needs, moreover, will continue to increase as firm residential requirements grow. Peak day needs increase at a rate approximately three times that of average day requirements. The Connecticut LDC's project that utilization of gas transported on Iroquois to meet these peak needs will save millions of dollars for their firm customers.

Competition between the two pipelines now serving Connecticut is limited, particularly during the winter when both lines are full. Between January 1985 and September 1986 -- a period of supposedly increased competition -- the divergence between Connecticut's city gate prices and the national average city gate prices increased substantially, a fact which is largely attributable to the scarcity of pipeline capacity in Connecticut. Moreover, Order No. 436 has not resulted in the availability of additional capacity. Existing customers are not reducing their entitlements to service on existing lines and cannot be expected to do so in the future. By contrast, the Iroquois Pipeline will substantially improve the competitive environment, which will benefit Connecticut gas consumers.

The Kumins analysis of Connecticut LDC pricing practices is based on inaccurate assumptions, which produce conclusions that are one hundred and eighty degrees off point: although the Memorandum suggests that firm customers are subsidizing interruptible sales, the exact opposite is true.

In summary, the Iroquois project is a regional supply project supported by all of the LDC's in the region. The pipeline affords Connecticut the opportunity to increase its consumption of natural gas. In doing so, it will displace imported oil, help meet design and peak day requirements and inject a much needed element of competition into a capacity constrained market.

Iroquois

July 20, 1987

Response To Larry Kumins' Memorandum Dated April 10, 1987 Concerning The Demand For Gas In The State Of Connecticut and the Iroquois Pipeline

INTRODUCTION

At the request of Representative John G. Rowland (R-Conn.), Larry Kumins, a specialist in energy policy for the Congressional Research Service, has prepared a memorandum dated April 10, 1987 which is entitled "Demand for Natural Gas in Connecticut and the Iroquois Gas Pipeline Proposal" (the "Kumins Memorandum" or "Memorandum"). Although the title of the Memorandum suggests that it concerns the impact of the Iroquois Pipeline on the total natural gas market in Connecticut, in fact the Memorandum is much more narrowly focused. The principal question addressed in the Memorandum is whether future growth in annual gas consumption within the State of Connecticut will be sufficient to absorb the additional 49.25 Bcf of natural gas that the Iroquois Pipeline will transport to the state on a firm basis. The Memorandum also discusses in relatively superficial terms the potential competitive benefits of the Iroquois Pipeline and the pricing of gas by local distribution companies ("LDC's") in Connecticut to various classes of customers.

While these topics are certainly relevant to the Iroquois Pipeline proposal, the Kumins Memorandum is notable for the important considerations that are entirely omitted from its description of the Connecticut natural gas market and the Iroquois Pipeline.

The Memorandum does not mention existing constraints on pipeline transmission capacity to Connecticut or the design winter and peak day requirements of Connecticut gas consumers, matters which are essential to a complete understanding of the need for the Iroquois Pipeline. The Memorandum also makes no reference to the formula for pricing the gas to be transported on the Iroquois Pipeline, although that formula is integral to any analysis of the competitive effects of the pipeline. Additionally, the Kumins Memorandum is guilty on several occasions of faulty analysis, such as comparing average 1985 residential gas prices to the September 1986 price of home heating oil or ignoring the effects of warmer than normal weather when extrapolating from historical gas sales data.

The errors in the Kumins Memorandum reflect the fact that its author apparently made no attempt to contact any Connecticut utility, major gas consumer, regulatory agency or the state energy office, thus excluding from consideration information that is most relevant to the issues addressed. This response reviews in detail the data and arguments that are presented in the Kumins Memorandum and analyzes this material in the context of the broader base of information and depth of understanding of the Connecticut gas market that has been developed by those who have been actively involved with the market for many years.

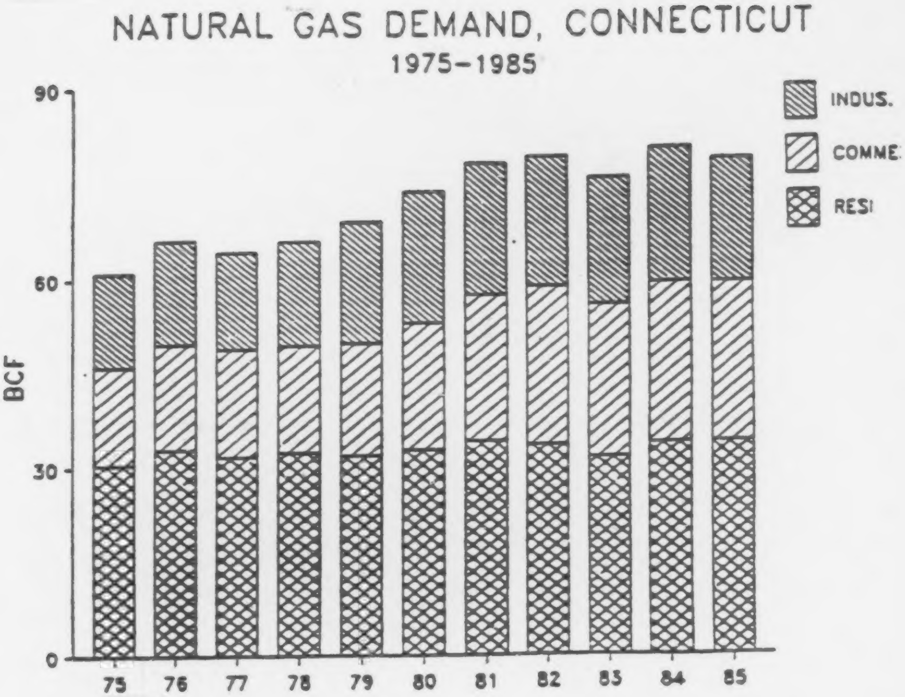
The first part of the analysis addresses the subject of market growth, which is the primary focus of the Kumins Memorandum. The second part of the response introduces the concepts of design year and peak day requirements which are important factors in considering Connecticut's need for the Iroquois Pipeline. The third part of the response discusses the competitive benefits of the Iroquois Pipeline in the context of the pricing formula which will apply to gas transported on the Iroquois system. The final part of the response briefly addresses the Kumins Memorandum's comments on LDC pricing policies.

I.

MARKET GROWTH

The Connecticut natural gas market has experienced "significant growth" since 1975. Memorandum, pp. 4, 6. This growth -- a 28% increase in sales through 1985 -- is depicted in Figure 1 of the Memorandum, which is reproduced on the following page. The Kumins Memorandum attempts to analyze the components of this historical growth pattern during a "base period" of 1975-85 and to "make[] a determination of what underlying growth trends might prevail for the remainder of the century." Id at 6. Specifically, the Kumins Memorandum "projects future gas demand in the State based on past demands from 1975 to 1985." Id. at 3. The Memorandum presents "upper range" and "lower range" forecasts of gas consumption broken down by end-use sector; i.e., residential, commercial, industrial, and electric power generation.

Figure 1



Source: AGA, Various Gas Facts, issues.

According to the text of the Memorandum, the upper range forecast "indicates that growth on the order of 2 or 3 Bcf/year can be expected in the current energy market." Id. at 2. This level of growth over a ten-year period would amount to a new market for 20 to 30 Bcf of gas and would absorb a significant portion of the annual gas supply made available through the Iroquois Pipeline. However, the figures in Table 1 of the Memorandum reflect growth in the high range forecast of only 12.7 Bcf during the 1985-95 period. This is closer to 1 Bcf/year growth, not the 2-3 Bcf/year mentioned in the text.

The lower range of the forecast suggests that no growth may occur in the Connecticut gas market for the rest of the century and that gas consumption might actually decline by about 0.5 Bcf/year.

All of these forecasts are premised on the assumption that growth trends experienced toward the latter part of the 1975-85 "base period," when market growth was substantial but somewhat slower than in previous years, will continue through at least 1995. The growth which occurred during the first six years of the period is discounted in the Kumins Memorandum on the ground that "underlying market trends during the first half of this time frame -- 1975-1980 -- were clouded by unfolding events in energy markets generally, their interaction with NGPA and the opening up of the interstate market." Memorandum, p. 4. As a result, the last five years of the "base period" are "more heavily relied on in forecasting market trends." Id.

A. Limitations on Pipeline Capacity

One difficulty with the Kumins Memorandum's heavy reliance on the 1981-1985 period -- and one of the major errors in the Memorandum -- is that it assumes that gas sales during this period were not constrained by limitations on interstate gas transportation. An unstated but critical assumption is that then-existing pipeline capacity could have supported substantially increased gas sales. This assumption is demonstrably false.

In recent years, the two interstate pipelines which serve Connecticut, Tennessee Gas Pipeline Company ("Tennessee") and Algonquin Gas Transmission System ("Algonquin"), have been operating at full capacity during much of the year. A draft Decision of the Connecticut Department of Public Utility Control ("DPUC") concludes:

> Connecticut is supplied by only two interstate pipelines, both of which are at full capacity in the winter. Therefore the options of Connecticut LDC's are limited. Gas consumed in Connecticut is largely for firm high priority uses to customers with limited or no options for alternative energy supplies. This is particularly so in the winter . . . .

Draft Decision, DPUC Investigation Into Connecticut Gas Utilities Forecasts Of Supply And Demand, Docket No. 86-10-13, p. 28 (June 5, 1987). On a peak winter day, interstate pipeline supplies can meet only about two-thirds of the requirements of the Connecticut LDC's. See Table 1. Costly supplemental supplies and storage services must be used to meet the balance of Connecticut's peak day needs. Id. Sales to interruptible customers must also be disrupted.

This unavailability of gas transportation capacity has severely limited increases in Connecticut gas sales. Without additional firm supplies, efforts to attach new annual loads have been limited. The shortage of capacity also discourages large volume customers from coming on to the system, even on an interruptible basis, because of the relatively low quality of interruptible service; i.e., interruptions are longer or more frequent than many customers will tolerate.

The failure of the Kumins Memorandum to take into account or even acknowledge the critical shortage of pipeline capacity completely undermines its forecasts and conclusions. Indeed, to accept the logic of the Kumins Memorandum would lead to a classic "Catch-22": no new pipeline capacity is needed in Connecticut because the existing shortage of capacity has limited growth in the market. Such reasoning is untenable.

B. Weather Conditions

The Kumins Memorandum also extrapolates from historical sales data without taking into account the effects of weather on actual sales levels. About 60-70% of gas sales in Connecticut are

TABLE 1

1985 COMPOSITION OF PEAK DAY SENDOUT

CONNECTICUT LIGHT & POWER COMPANY,
CONNECTICUT NATURAL GAS COMPANY,
AND SOUTHERN CONNECTICUT GAS COMPANY

1985 PEAK DAY SENDOUT = 540.3 MMMBtu

Source	Volume (MMMBtu)	% of Sendout
Pipeline supplies	310.6	57.5
Winter Service	55.0	10.2
Subtotal	365.6	67.7
Storage	71.8	13.3
Propane	102.9	19.0
Subtotal	174.7	32.3
TOTAL	540.3	100%

weather sensitive. This portion of Connecticut's gas requirements increases during colder weather and decreases during warmer weather. A colder or warmer than normal winter will significantly affect total sales for the year.

Temperature conditions over the course of a season or a year are measured in degree days. A higher number of degree days indicates colder temperatures during the relevant period of time. Table 2 sets forth degree day data for Connecticut for the years 1980-85 and for a normal year. Data is also provided on a heating season basis.

Table 2 reveals that weather patterns are responsible for a significant part of the apparent "slowdown" in the rate of increase in gas sales. In particular, Table 2 shows that 1980 was colder than any year in the base period. It was about 6% colder than 1985, which was the warmest year of the six years. On a heating season basis, the winter of 1980-81 was also about 6% colder than the winter of 1985-1986, about 10% colder than the winter of 1984-1985 and about 16% colder than the winter of 1982-1983. Thus, the starting point for projections in the Kumins Memorandum was a relatively cold year and the end point of the base period was a much warmer year.[1]

---

[1] Despite the weather pattern, gas sales in Connecticut increased by an average of about 1 Bcf/year between 1980 and 1985. AGA 1985 Gas Facts, Table C-5. While growth at this rate is consistent with one of the "high range" forecasts in the Kumins Memorandum, it obviously would have been higher on a "normalized" basis.

TABLE 2

CONNECTICUT DEGREE DAYS

Year	Degree Days	Heating Season (Nov.-Mar.)	Degree Days
30 Year Normal	6,146	30 Year Normal	4,839
1985	5,886	1985-86	4,711
1984	5,903	1984-85	4,548
1983	5,786	1983-84	4,819
1982	6,079	1982-83	4,280
1981	6,113	1981-82	4,987
1980	6,246	1980-81	5,046

Sources: 1982-85 AGA Gas Facts, Table 10-7; 1981 Gas Facts, Table 80.

It is standard practice in projecting gas sales to normalize historical data for weather conditions. The Kumins Memorandum's failure to use normalized data or to even mention the impact of weather is an elementary mistake. More accurate projections which utilize historical data that has been normalized for weather have been prepared by the Connecticut LDC's and are discussed in Part I.F below.

C. Interfuel Competition

Apart from its misplaced reliance on growth rates for the second half of the "base period," the Kumins Memorandum offers one other broad-based rationalization for its pessimistic market forecasts. This concerns the relationship between natural gas and oil prices, particularly the relationship between the price of gas and No. 2 fuel oil. According to the Kumins Memorandum, gas prices were below oil prices during ten years of the eleven year "base period." Memorandum, p. 10. However, this relationship is said to have been reversed in 1985, with gas prices exceeding fuel oil prices for the first time in many years. The Memorandum describes this reversal as an "inverted" price relationship. Id.

Although the inverted price relationship is discussed throughout the Kumins Memorandum, comparative price data is provided only for the residential market and these data are exaggerated and highly misleading. The Kumins Memorandum states that the residential burner tip price of gas was $8.89 per million

Btu's in 1985 according to AGA's 1985 Gas Facts. Id. at 6. This annual average price is equivalent to $1.23 per gallon of No. 2 fuel oil. The Kumins Memorandum compares this price to a September 1986 price for No. 2 fuel oil of $0.68 per gallon as reported in the Department of Energy's Monthly Energy Review, September 1986. Thus, the Kumins Memorandum compares a 1985 annual average price for gas to the price of oil in a single month in 1986 which is not part of the heating season (when oil prices generally tend to increase). The same edition of the Monthly Energy Review states on the same page cited in the Kumins Memorandum that the 1985 annual average price of No. 2 fuel oil to residential consumers in Connecticut was $1.08 per gallon or $0.50 higher than the September 1986 price. While the $1.08 per gallon figure is still lower than the average 1985 gas price, the difference between $0.68 and $1.08 reflects the level of exaggeration in the Kumins Memorandum.

More importantly, it is not appropriate to compare the prices of natural gas and No. 2 fuel oil on a direct basis. Residential consumers who heat with oil generally use electricity for hot water heating, cooking and clothes drying. Electricity costs between $21.00 and $25.00/MMBtu plus a monthly service charge of $5.00 to $8.00. See Appendix A. This is the equivalent of $3.25/gallon of fuel oil plus the monthly service charge. By contrast, residential consumers who heat with gas generally also use gas for hot water heating, cooking and, in some cases, clothes drying, at about one-third the cost of electricity. Thus, a comparison of gas and oil prices for residential consumers should include electric prices.[2] The Kumins Memorandum's analysis is flawed because it considers only gas and oil prices in projecting residential demands.

Data on the number and types of residential customers in Connecticut demonstrate that increases in the price of gas relative to oil have not diminished residential requests for gas service. Appendix A indicates that residential gas prices moved ahead of No. 2 fuel oil prices in 1983, not in 1985 as the Kumins Memorandum suggests. Despite this change in relative prices, the number of residential customers has increased by 4,000-8,000 each year since 1981 and the number of residential space heating customers has increased by 24,000 since 1981. See Table 3. Indeed, the number of new residential customers has increased faster since 1983 (when gas became more expensive than oil in the residential market) than it did in 1981 or 1982. For example, there was a net increase of only about 4,000 residential space heating customers during 1982 when the gas price was roughly $2.00/MMBtu less than the No. 2 fuel oil price, but there was an increase of more than 10,500 residential space heating customers in 1986 -- two and one-half times the 1982 total -- when gas prices were generally

---

[2] Considerations other than price also affect consumers' fuel choices. Consumers often prefer gas to oil because it is cleaner to handle and burn. Many consumers also consider gas to be more reliably available than oil. If price were the only consideration, homeowners would heat with coal. See Appendix A, p. 1.

TABLE 3

RESIDENTIAL CUSTOMERS IN CONNECTICUT

Year	Total No. Residential Customers (000's)	Total No. Residential Space Heating Customers (000's)	Saturation %
1986	402.0	264.8	65.9
1985	394.0	254.1	64.5
1984	388.2	256.4	66.0
1983	384.0	240.5	62.6
1982	380.4	245.5	64.5
1981	376.2	241.2	63.9

Sources: 1981-85 data from AGA Gas Facts, Tables 62 and 65 in 1981 AGA Gas Facts, Tables 8-4 and 8-5 thereafter; 1986 data based on figures from 1985 Gas Facts plus net customer changes in 1986 from Connecticut Light and Power Company, Connecticut Natural Gas Company and Southern Connecticut Gas Company.

higher than oil prices. See Table 3 and Appendix A. These data clearly demonstrate that the relative price of gas and oil is not and has not been the dominant factor affecting net customer additions in the Connecticut residential market.

As noted above, the Kumins Memorandum does not mention specific prices for other market sectors, *i.e.*, commercial, industrial and electric generation. Nevertheless, it generally asserts that in 1985 gas became more expensive than oil for these customers as well. This assertion is not necessarily accurate with respect to large interruptible customers who buy gas at rates that are indexed to oil prices. The prices charged to these customers are discussed in Part I.E and Part IV below.

With respect to commercial customers, it is very difficult to compare fuel prices because the composition of this sector is so mixed. Some commercial customers have dual fuel capability and can buy oil in bulk. The fuel requirements of other commercial customers more closely resemble those of private homeowners. Gas prices in the commercial sector have averaged about \$2.00-\$3.00/MMBtu less than residential prices. This is generally less than retail No. 2 fuel oil prices which would be paid by some residential customers, but is higher than some recent wholesale prices for No. 2 fuel oil which are closer to the prices that would be paid by other commercial customers.

Despite the difficulties in making price comparisons, one thing is clear: since 1981 the number of commercial customers has increased every year. Generally the number of net customer additions has also increased each year growing from 7,000 net additions in 1982 to 17,000 net additions in 1986. As Table 4 demonstrates, the number of new commercial customers, like the number of new residential customers, has not been slowed by price changes.

D. Conservation

The Kumins Memorandum argues that conservation will be a major limitation on future growth in the residential market. This is based on a simplistic theory which considers only the rate of residential furnace replacements and 1982 data on the thermal efficiency of furnaces. The Memorandum concludes that improved energy efficiency will cause residential space heating demand to decline by 1.4 percent per year, unless new space heating customers are added. Memorandum, p. 11. In reaching this conclusion, the Kumins Memorandum does not take into account any factor affecting conservation other than the efficiency of furnaces. Thus the Memorandum ignores key factors affecting residential gas consumption such as consumer attitudes, the installation of gas air-conditioning and gas appliances, and new home sizes.

By focusing on only one factor, the Kumins Memorandum reaches a result which is not supported by past experience.' As Tables 2 and 5 indicate, average gas consumption per residential customer has increased since 1982 by 4.2%, despite the fact that 1982 was colder than the following years. Between 1980 and 1985,

TABLE 4

COMMERCIAL CUSTOMERS IN CONNECTICUT

Year	No. Commercial Customers (000's)
1986	38.2
1985	36.5
1984	35.6
1983	34.8
1982	34.2
1981	33.5

Sources: 1981-85 data from AGA Gas Facts, Table 62 in 1981 AGA Gas Facts, Table 8-4 thereafter; 1986 data based on 1985 figures in 1985 AGA Gas Facts plus net customer changes in 1986 from Connecticut Light and Power Company, Connecticut Natural Gas and Southern Connecticut Gas Company.

TABLE 5

AVERAGE ANNUAL RESIDENTIAL GAS CONSUMPTION

Year	MMBtu Per Customer
1985	85.8
1984	86.9
1983	82.3
1982	88.3
1981	90.6
1980	88.1

Sources: 1982-85 AGA Gas Facts, Table 10-6.

residential gas consumption did decline, but only a total of 2.3 Mcf/customer or less than 0.5% per year. As noted above, however, 1980 was 6% colder than 1985. When weather is taken into account, these data show little or no decrease in gas use per residential customer. Once again, the Kumins Memorandum ignores the readily available data.

E. Electric Power Generation

The Kumins Memorandum acknowledges that a single electric generating plant could utilize all of the gas transported to Connecticut by the Iroquois Pipeline, but nevertheless it discounts completely the possibility of increased gas use for electric generation. Memorandum, p. 18. This conclusion is based in part on the assertion that "gas consumed in the utility sector was virtually too small to measure, amounting to less than one percent of total state demand." Id. at 16. The Memorandum also contends that gas is now and always has been too expensive for use in power plants. Id. This is another area where the Memorandum's facts are wrong and its analysis is incorrect.

Historically, New England has been heavily dependent on imported oil and has used very little gas for electric power generation. Prior to 1984, almost no gas was used in Connecticut's power plants, principally because of limitations on gas supplies in prior years and the absence of pipeline connections to power plants. However, as part of an effort to diversify its sources of electric power and to reduce its costs, Northeast Utilities converted the Montville Unit No. 5 to gas in July 1984. The Montville unit also has the capability to burn No. 6 fuel oil.

During the latter half of 1984, the Montville Unit consumed about 2.3 Bcf of gas. This rate of consumption decreased in 1985-86 due to the sharp drop in oil prices and the unit's consumption of gas totaled only about 2.3 Bcf in those years. By 1987, however, gas prices had caught up with the oil price drop and the Montville Unit has already consumed about 1.6 Bcf of gas through the end of June 1987. Virtually all of this gas was used during the late spring and summer, when pipeline capacity is less constricted. The Montville Unit has been consuming an average of 0.5 Bcf/month in April, May, June and July 1987.

The successful Montville conversion was followed by the conversion to gas of United Illuminating's New Haven Harbor Station in mid-1986. That plant has already consumed about 1 Bcf of gas in 1987, mostly during the late spring and summer months. United Illuminating is considering tripling the gas consumption capability of the plant. In addition, there have been preliminary discussions concerning the conversion to gas of its Bridgeport plant. Northeast Utilities is also actively considering the use of gas in its Middletown and Devon plants.

The successful Montville and New Haven Harbor conversions demonstrate that the Kumins Memorandum is wrong when it states that gas is too expensive for use in power plants. Although the sharp drop in oil prices in 1985-86 did affect gas consumption for electric power generation, this proved to be a transitory phenomenon.[3]

Another area of growth in the electrical generation sector is gas-fired cogeneration. The Kumins Memorandum projects no sales for new cogeneration projects because the "DPUC has adopted a go slow policy." Memorandum, p. 17. The term "go slow" may be misleading. A total of 540 MW of cogeneration capacity has been approved by the DPUC or is already operating in the state. About 165 MW of this capacity is fueled by natural gas. These gas-fired units represent a market of approximately 10 Bcf. At least 118 MW of additional gas-fired cogeneration has been proposed.

Another possibility for increased sales in the electric generation sector is combined cycle power generation. The Kumins Memorandum recognizes that this type of gas-fired power plant may be a cost effective way to meet New England's growing electricity needs. According to the Memorandum, however, the only combined cycle project on the drawing boards is the Ocean State Power facility which has already arranged pipeline transportation on another pipeline system. Id. at 18-19.

---

[3] Generally there is a time lag between changes in oil prices and changes in gas prices. Over time, however, the swings in the market tend to even out and historical price relationships have been maintained. The Kumins Memorandum assumes that the "inverted" price relationship of gas and oil in 1985-86 will continue indefinitely, but the only support offered for this assumption is the statement that "the center of gravity of current forecasts seems to be in [the same] general range." Memorandum, p. 4. This statement is unsupported by references and it is not clear whether the Memorandum is referring to forecasts of gas and oil prices or oil prices only. While there are any number of forecasts that predict relatively stable oil prices, these forecasts also predict that gas prices will adjust so that they are competitive with oil prices, which is precisely what happened in 1987.

The Ocean State Power facility will consist of two units of approximately 250 MW each. All of the environmental permitting for the plant is being done on a two-unit basis and each unit will require about 18 Bcf of natural gas annually. The only pipeline transportation that has been arranged by Ocean State Power is for the first unit and that arrangement is conditioned on long-delayed regulatory approvals. Thus, Ocean State Power represents a substantial potential market for the Iroquois Pipeline.[4] Furthermore, there are other combined cycle plants under consideration in New England, including one by Northeast Utilities. Nevertheless, the Kumins Memorandum projects no sales into this market.[5]

---

[4] The Memorandum suggests that increased imports of Canadian hydroelectric power may be an alternative to new combined cycle plants. This is apparently a reference to the proposed Hydro-Quebec Phase 2 project. In planning the Ocean State Power Project, it was determined that additional generating capacity was needed even though the Hydro-Quebec import was assumed to be coming on line. Recently, however, the National Energy Board of Canada declined to issue an export licence to Hydro-Quebec.

[5] The Kumins Memorandum is also incorrect when it states that gas transportation capacity can be firmed-up after the decision has been made to build a combined cycle plant. This is generally not true for projects such as Ocean State Power, where financing requirements necessitate that firm gas transportation arrangements be made before plant construction begins.

F. Connecticut Utilities' Forecasts

The Connecticut Light and Power Company, Connecticut Natural Gas Corporation and Southern Connecticut Gas Company, which account for 98% of utility gas sales in Connecticut, have prepared their own market forecasts. These forecasts do not suffer from the deficiencies in the Kumins Memorandum. Each company has taken into account weather conditions in evaluating historical data. Field data and econometric analysis are also included in the forecast methodologies. The forecasts of the Connecticut LDC's were filed with the Connecticut Department of Public Utility Control ("DPUC") and were publically available when the Kumins Memorandum was prepared; however, they are not mentioned in the Memorandum and apparently were not considered during its preparation. Although these forecasts are based on a conservative appraisal of the future for natural gas in Connecticut, they do demonstrate, as the DPUC concluded in its draft order, the need for substantially increased pipeline capacity in Connecticut.

II.

DESIGN AND PEAK DAY REQUIREMENTS

As noted in the introduction to this response, the Kumins Memorandum does not address Connecticut's need for gas in a colder than normal year, especially during a "design winter." Connecticut utilities design their systems to meet the requirements of firm customers during the coldest winter in a thirty-year period. This may result in some excess capacity during normal or warmer than normal years, but increased interruptible sales during such years help defray the cost of being prepared to meet design winter requirements. In any event, the cost of failing to meet firm winter requirements, both economic and non-economic, is clearly greater than the cost of being prepared for a design winter. While the Kumins Memorandum may elect to ignore design winter requirements, the Connecticut LDC's cannot.

The Connecticut LDC's regularly forecast supplies and requirements for a design winter. These forecasts show that gas supplies will be significantly less than design requirements in the early 1990's. There would be no deficit if the Iroquois pipeline is built.

While it is possible to reduce the design winter deficit to a degree without the Iroquois pipeline, it is clear that Connecticut is facing a serious problem. Most interruptible sales would not be made during a design winter, although after the peak winter months (during the "shoulder" of the winter), there usually is no reason not to resume interruptible sales. Emergency measures are also possible, and one might argue about the accuracy of projected growth rates. Regardless of the treatment of these items, however, deficits will exist unless gas supplies are increased. The Connecticut LDC's must be prepared to meet a design winter -- their franchises obligate them to do so and so does common sense. They believe that the Iroquois pipeline is the best way to meet this pressing need. Clearly, a substantial expansion of gas deliverability is required.

Another weather related consideration which is ignored in the Kumins Memorandum is peak day requirements. Even in a normal year, firm requirements increase substantially on the coldest days of the winter. As demonstrated in Table 1, firm pipeline supplies to Connecticut are able to meet only about two-thirds of peak day requirements. The balance of peak day requirements are met from much higher cost sources.

As firm and residential requirements continue to grow, Connecticut's peak day needs will also increase. Residential and commercial customers in Connecticut consume gas at about a 33% load factor on average. This means that peak day needs of these customers are about three times their average day requirements. The implications of this fact, even with very modest growth, explain why the Connecticut LDC's project that the Iroquois Pipeline will save millions of dollars for their firm customers.

The Kumins Memorandum projects that residential and commercial sales will increase by about 13 Bcf between 1985 and 1995 in its "high range" forecast. Memorandum, p. 8. For the reasons explained above, this is a very conservative forecast. It also does not include related company use and unaccounted for volumes. Nevertheless, 13 Bcf in annual volumes translate into 107,000 Mcf/d on a peak day using a 33% load factor. The Connecticut LDC's have only contracted for 135,000 Mcf/d on the

Iroquois pipeline. In other words, almost all of Iroquois' capacity will be needed to meet peak day requirements, even if one assumes the Kumins Memorandum's forecast. The cost of meeting these additional peak requirements through supplemental sources would be millions of dollars more than the cost of the Iroquois Pipeline, according to the Connecticut LDC's.

III.

PIPELINE COMPETITION

As noted above, only two interstate pipelines currently serve Connecticut: Tennessee and Algonquin. There is little competition between these pipelines, particularly during the winter when both pipelines are full and when the most gas is used by residential and commercial customers. Additionally, there are limitations on the ability of Connecticut LDC's to substitute gas transported by one pipeline for gas transported by the other pipeline because of system constraints. This too impedes competition.

Despite the obvious limitations on competition, the Kumins Memorandum questions the competitive benefit of the Iroquois Pipeline. Specifically, the Memorandum states that city gate gas prices have fallen substantially since 1985. Memorandum, pp. 23-24. It suggests that this decline may be due to increased competition and questions whether the "small" Connecticut market can do any better. Memorandum, p. 2. The Memorandum does not point out that the difference between Connecticut's city gate prices and the national average city gate prices increased substantially through September 1986. In 1985, the annual average city gate price in Connecticut was only $0.45 or 12% higher than the national average. By September 1986 this differential was $1.01/Mcf or 33% higher than the national average.[6] Clearly, Connecticut did not enjoy the benefit of increased competition during this period to the same degree as other parts of the country. This is largely attributable to the scarcity of pipeline capacity in Connecticut.

The Kumins Memorandum also suggests that the open-access provisions of Order No. 436 may stimulate further competition. However, it is clear that the open-access provisions will not increase pipeline capacity to Connecticut, which is the root of the competition problem. While the contract demand ("CD") conversion/reduction provisions of Order No. 436 might theoretically free-up pipeline capacity for the state, no one seriously expects any CD reductions on either Tennessee's Northeastern system or Algonquin, which is the only way that increased pipeline capacity could become available. Furthermore, the CD conversion/reduction provisions were specifically struck down by the Court of Appeals in Associated Gas Distributors v. FERC, Slip Op. No. 85-1811 (June 23, 1987). Thus, Order No. 436's open-access provisions do not appear to offer a meaningful solution to Connecticut's competition problem.

---

[6] Energy Information Administration Natural Gas Monthly, December 1986, pp. 61-62. This price disparity explains part of the reason why Connecticut's residential rates are higher than rates in other states. Another factor is the high percentage of non-heating residential customers. Non-heating residential customers are the most expensive to serve and, as noted above, the cost of serving them can be compared to the cost of electricity.

The Iroquois Pipeline does offer such a solution. The gas which Iroquois transports to Connecticut will be sold under a price formula that significantly enhances competition. That formula requires Canadian gas producers to reduce their prices by the amount of Canadian transportation costs (at 100% load factor) and to sell gas delivered to the city gate at a price which is competitive with a mix of industrial fuel oil (No. 6 oil), home heating oil (No. 2 oil) and natural gas. These producers have agreed to sell their gas for less than Tennessee's and Algonquin's producers are currently selling theirs (when transportation costs are excluded). This commitment is contained in fifteen-year contracts which are on file with the Economic Regulatory Administration.[7] These prices will put pressure on other producers to lower their own prices or risk losing market, particularly in the initial years of Iroquois' operation -- all of which will benefit Connecticut consumers.

---

[7] There is no need for the Kumins Memorandum to wonder about the source of any price "discounting" for gas transport[illegible] the Iroquois Pipeline. (See Memorandum, p. 19). The pricing terms for this gas are clearly set forth in publically filed contracts. These terms demonstrate the baselessness of the Kumins Memorandum's speculations.

IV.

LDC PRICING PRACTICES

The ratemaking methodologies of the Connecticut LDC's are regularly reviewed and approved by the Connecticut DPUC. One of the responsibilities of the DPUC is to make sure that residential customers do not subsidize other customer classes. The Kumins Memorandum accuses the DPUC of not doing its job. Memorandum, pp. 23-24. The Memorandum's analysis, however, is plainly wrong.

The Kumins Memorandum notes that the difference between the city gate and industrial price in Connecticut was $2.01 in January 1985 but only $0.84 in November 1986. The Memorandum assumes -- quite erroneously -- that the $2.01 figure represents the cost for an LDC to serve its industrial customers. This error is then compounded by the incorrect suggestion that the difference between the November 1986 margin of $0.84 and the 1985 margin of $2.01 represents a subsidy from residential consumers to industrial customers.

The facts are quite different. Each of the Connecticut LDC's does make interruptible sales at rates which are tied to the price of oil. These interruptible rates, however, are not permitted to fall below the actual costs of the sale. If the oil-indexed price falls below the sales cost, gas sales would stop. These interruptible rates did decline between January 1985 and November 1986, as oil prices declined. However, even in November 1986, most of the $0.84 margin offset the cost of serving residential customers.[8] In other words, the interruptible customers are subsidizing firm customers and not the other way around.

Apparently, the Kumins Memorandum would prefer to see a required $2.01 margin on all boiler fuel sales. Of course, no interruptible sales would be made at that price, because of fuel switching. The result would be the elimination of the subsidy for residential customers and higher consumer prices, which clearly would not be in the interests of Connecticut consumers.

V.

CONCLUSION

The Iroquois Pipeline will transport up to 353,000 Mcf of natural gas per day to customers in Connecticut, New York and New Jersey. Every local distribution company on the pipeline route and several which will need to transport gas on interconnecting U.S. pipelines have reserved transportation service on the Iroquois system. The entire capacity of the pipeline has been fully subscribed.

The Iroquois project is a regional supply project and has the support of all local distribution companies in the region.

---

[8] Northeast Utilities estimates that gas and electric customers have saved more than $1,000,000 in 1987 due to the use of gas at the Montville Unit at a transfer price which tracks the oil price. Southern Connecticut Gas Company's firm customers have received more than $300,000 in savings in 1987 due to sales to the New Haven Harbor Station at a price which tracks oil.

The sponsors of the Iroquois Pipeline are fully committed to its successful completion. The Iroquois project is fully formed, with gas supplies and willing customers in place. Since 1980, other pipeline projects have been proposed to bring Canadian gas to the U.S. Northeast, but none of those proposals were ever completed. None had both gas supplies and customers. Indeed, in each case, at least some of the sponsors of the pipeline expansions would have been transporting gas in competition with their own gas sales. In these circumstances, it is not surprising that none of the projects ever came to fruition.

The Iroquois Pipeline affords Connecticut the opportunity to increase its consumption of natural gas, which is far below the national average. The Iroquois pipeline will displace imported oil, help meet design winter and peak day requirements and inject a needed element of competition into a capacity constrained market.

The Kumins Memorandum attempts to cast doubts on these benefits, but ultimately does not succeed. The Memorandum ignores important facts and substitutes speculation for analysis.

This analysis explains some of the reasons why the Iroquois sponsors are convinced that Connecticut will fully utilize its share of the pipeline's capacity. The Iroquois sponsors have backed their views with more than words; they have put their money on the line. If the Iroquois Pipeline is not utilized as the sponsors project, they stand to lose their entire equity investment in the pipeline, which will be about $100,000,000. This is the true test of the need for the Iroquois Pipeline -- the test of the market. The Iroquois Pipeline meets this test.

APPENDIX A

STATE OF CONNECTICUT

OFFICE OF POLICY AND MANAGEMENT

ENERGY DIVISION

RESIDENTIAL SPACE HEATING COST COMPARISON QUARTERLY REPORT

APRIL 1987

FUEL TYPE	UNIT	PRICE ($/UNIT)	BTU EQUIVALENT	GROSS COST ($/MILLION BTU)
Natural Gas	Cubic Foot	0.00754	1,030	7.32
Electricity	Kilowatt-hour	0.075	3,412	21.98
#2 Heating Oil	Gallon	0.844	138,690	6.09
Kerosene	Gallon	0.944	135,000	6.99

Prices are statewide averages, local prices will vary from those shown.

The prices shown for natural gas and electricity do not include any monthly service charges. Current service charges range from $5.00 to $8.00 per month depending on the utility company.

IF THIS TABLE, OR THE DATA CONTAINED THEREIN, ARE TO BE USED, THE FOOTNOTES MUST BE INCLUDED, AND THE CONNECTICUT OFFICE OF POLICY AND MANAGEMENT IS TO BE CITED AS THE SOURCE.

Price per unit is the average price delivered to the residential sector. Natural gas and electricity prices are calculated from each utility's current rates and fuel adjustments. Number 2 heating oil and kerosene prices are determined by surveys conducted by the Energy Division of the Office of Policy and Management.

Gross cost is the direct conversion of unit prices to cost be million Btu. This conversion allows the comparison of prices for different energy sources. A more accurate comparison can be made when net costs are compared. Net cost is the gross cost adjusted for heating system efficiency. For example, assume an oil central heating system were 70% efficient. If gross cost were $5.00 per million Btu, the net cost would be $5.00 divided by 70%, or $7.14 per million Btu. The efficiency of oil and natural gas systems can vary greatly, and the net cost will therefore depend on the specific heating system in question.

Phone:
80 Washington Street • Hartford, Connecticut 06106

RESIDENTIAL SECTOR SPACE HEATING COST COMPARISON
HISTORICAL SUMMARY

	#2 HEATING OIL		KEROSENE		NATURAL GAS		ELECTRICITY		COAL	
	$/gal	$/mmBtu	$/gal	$/mmBtu	$/mcf	$/mmBtu	$/kwh	$/mmBtu	$/ton	$/mmBtu
12/79	0.91	6.56	0.97	7.15			0.047	13.62	120.00	4.72
03/80	0.99	7.20	1.07	7.86			0.057	16.71	120.00	4.72
07/80	1.02	7.34	1.11	8.17	5.04	4.98	0.057	16.71	110.00	4.33
10/80	1.02	7.37	1.11	8.17	5.22	5.15	0.058	16.91	117.00	4.61
12/80	1.10	7.91	1.20	8.82	5.83	6.75	0.070	20.60	124.00	4.88
03/81	1.31	9.43	1.41	10.38	5.92	5.85	0.082	24.09	124.00	4.38
06/81	1.26	9.11	1.39	10.26	6.04	5.96	0.079	23.01	124.00	4.88
10/81	1.24	8.93	1.38	10.15	6.90	6.82	0.081	23.71	140.00	5.51
01/82	1.26	9.11	1.42	10.45	7.38	7.29	0.079	23.15	140.00	5.51
04/82	1.15	8.31	1.37	10.13	7.72	7.51	0.078	22.74	130.00	5.12
07/82	1.20	8.67	1.38	10.21	7.99	7.78	0.080	23.30	130.00	5.12
10/82	1.21	8.73	1.39	10.33	8.15	7.84	0.076	22.33	130.00	5.12
01/83	1.24	8.93	1.40	10.33	9.37	9.02	0.077	22.48	130.00	5.12
04/83	1.07	7.70	1.30	9.59	9.08	8.74	0.077	22.42	130.00	5.12
07/83	1.10	7.90	1.29	9.53	8.86	8.53	0.075	22.07	130.00	5.12
10/83	1.09	7.85	1.31	9.68	8.60	8.28	0.079	23.07	130.00	5.12
01/84	1.12	8.05	1.32	9.80	7.86	7.57	0.085	24.85	130.00	5.12
04/84	1.16	8.38	1.35	9.96	7.97	7.67	0.087	25.38	130.00	5.12
07/84	1.13	8.15	1.36	10.07	7.77	7.48	0.085	24.97	130.00	5.12
10/84	1.08	7.79	1.36	10.07	8.04	7.75	0.083	24.33	142.00	5.59
01/85	1.09	7.86	1.30	9.63	8.20	7.96	0.083	24.33	145.00	5.71
04/85	1.10	7.93	1.31	9.70	8.39	8.15	0.084	24.62	143.00	5.63
07/85	1.04	7.53	1.25	9.27	8.25	8.01	0.081	23.80	141.00	5.55
10/85	1.05	7.55	1.28	9.51	8.25	8.01	0.080	23.56	143.00	5.63
01/86	1.15	8.32	1.33	9.85	8.30	8.06	0.078	22.86	142.00	5.59
04/86	0.92	6.63	1.20	8.92	8.24	8.00	0.076	22.27	141.00	5.55
07/86	0.77	5.54	1.06	7.89	7.87	7.64	0.072	21.10	141.00	5.55
10/86	0.71	5.10	0.99	7.36	7.62	7.40	0.073	21.40	147.00	5.79
01/87	0.77	5.57	0.99	7.36	7.42	7.21	0.073	21.45	147.00	5.79
04/87	0.84	6.09	0.94	6.99	7.54	7.32	0.075	21.98		

REMARKS OF
PHILIP T. ASHTON
SENATE ENERGY COMMITTEE
JULY 20, 1987

In a project as far-reaching and as essential to Connecticut as is the Iroquois Gas Transmission System, there are many issues to be addressed. These have been discussed and reviewed at length in the filings, reports, studies, briefings and public statements which have been made since the initial application was filed in May of 1986. Much documentary information is or will be made available to the Committee and we would be pleased to provide any further data requested.

My remarks will briefly review the primary reasons why The Connecticut Light and Power Company has participated in the Iroquois project and why it is so urgent that it progress in a timely manner to serve the best interests of our customers, the State and the nation.

Unsupportable comments to the contrary notwithstanding, it is well recognized that additional supplies of natural gas are needed in Connecticut if we are to meet the increasing firm energy needs of our customers, especially given the State's booming economy. The Connecticut Light and Power Company now serves 167,000 gas customers in 53 cities and towns of the State including Stamford, Norwalk, Danbury, Waterbury, Bristol, Meriden, Enfield and New London. Since 1981, our customer requirements for firm gas have grown steadily. Among the newest customers are the huge new Danbury Mall and the large new IBM complex in Southbury. Our forecasts anticipate considerable additional growth in firm load IF we can obtain the needed additional economic supplies of gas. Nowhere is this situation more succinctly stated than in a report issued this January by the State of Connecticut Office of Policy and Management's Energy Division:

> "The Connecticut gas market is generally considered to be unsaturated, or having unmet potential for growth. Such growth could take the form of additional customers on existing lines, extension of lines to serve new users of gas, cogeneration, and conventional electrical generation.
>
> "The present constraint on growth in the Connecticut market is supply. Although there is an excess deliverability of natural gas nationally, the two pipelines serving the state are at capacity, and the market is not expected to grow substantially until additional sources of supply are secured."

For many years we and others have sought to obtain more economic supplies and necessary additional volumes to meet our public service obligations and to do so at a competitive price. The few increments of supply we have received have been in dribs and drabs, and then only after painful delay.

For example, we applied for gas through the Boundary Project in 1980. On November 1, 1984, we began to receive the first half of the approved volumes.

Last Wednesday (July 15, 1987) the FERC certificated Phase 2 of Boundary, the remaining half. It remains to be seen whether or not Tennessee, the holder of the certificate, accepts the conditions FERC imposed. Thus, seven years after our initial application, we may finally receive all the approved volumes.

While these volumes are limited they represent the least expensive source of firm commodity gas we have and their availability has enabled us to discontinue the use of synthesized natural gas costing more than three times as much. The savings so achieved have all been passed on to our ratepayers.

Iroquois gas will be priced in the same manner as Boundary and that is another very attractive feature. Both these supplies utilize a price index formula which is tied to the price of #6 and #2 oil and natural gas delivered to the New York market. Thus we can be assured that both will remain competitive in the face of a changing market. Neither of our present suppliers adjust their prices in such a fashion.

Iroquois has another advantage in that it increases delivery reliability by providing a long-sought third pipeline supply into New England and Connecticut in particular. To our Company and some others it also provides encouragement for increasing the geographic area to be served by gas since the pipeline would traverse areas presently unserved.

Another major benefit of Iroquois to the State and region will be the increase in competition between oil and gas and, we believe, to a far lesser extent between and among various sources of gas. The virtue of such competition can be vividly demonstrated in two ways.

1. Montville Unit No. 5, with an 80 Mw capability was converted to be able to burn gas as well as oil on June 30, 1984. In our opinion this caused an immediate response in the price of #6 oil, both at Montville and at our other generating stations. This has obvious benefits to electric ratepayers. In addition, the gas we are now burning in that unit is saving our electric ratepayers approximately $25,000 per day compared to the price of oil. Iroquois will make more gas available for use in generating stations.

2. Since oil is primarily the fuel at the margin which would be replaced by Iroquois gas, the region and especially Connecticut would receive significant environmental benefits by reduced emissions. If we assume that Iroquois would replace oil with an average sulfur content of 1% there would be a reduction in elemental sulfur emissions of about 90 tons per

day. Given our problem with air quality, this is a distinct benefit.

Presently, gas to be supplied by Iroquois represents the ONLY way to substantially augment the State's firm gas supply. Earlier proposals did not come to fruition nor did they present the opportunity for a more secure long-range energy future reflected in the Iroquois proposal. This and the proven record of success with Boundary are precisely the reasons why Connecticut's gas utilities proposed and became participants in this ambitious undertaking.

In less than two years this country's reliance on imported sources of oil has risen from 27 percent to 40 percent. To put this into perspective: in 1985 Connecticut depended on oil for 63.3% of gross energy consumption, nearly half again as high as the national average and nearly all of which is imported oil. In contrast, natural gas provided only 12.2% of gross energy consumption, about one-half of the national average, all of which is either from domestic sources or from those of our closest ally and largest trading partner, Canada. We have only to remember the embargo of 1973 and the shortage of 1979 to realize the seriousness of the present situation. Iroquois will be a meaningful step to minimize regional dependence upon imported oil. While this will not in itself eliminate the problem, it is certainly a move toward giving us greater control of our energy future.

In this regard, Iroquois explicitly conforms to both State and national energy policy and hence provides another reason to support the project. It then logically follows that unreasonable procrastination or rejection of Iroquois is contrary to these policies. Why should we allow the State to be increasingly exposed to risk from the dangerously unstable Middle East? It makes no sense at all.

We fully recognize that a project of this magnitude must be carefully scrutinized by appropriate governmental bodies. That is as it should be. Since the project's inception more than a year ago we have cooperated and will continue to cooperate in such a review since we have no doubt it will lead to the conclusion that Iroquois is the best, indeed the only way to gain the long-term benefits we are seeking.

In summary, the Iroquois Gas Transmission System represents a unique opportunity to diversify our energy mix, assure long-term supplies at competitive prices and achieve the public policy, both State and federal, of reducing dependence on energy sources subject to disruption.

We would make only one request to the Senate Energy Committee (and you, Senator): that you clearly and unequivocally urge the FERC and ERA to initiate expeditiously a fair and full review of the project.

I would be happy to respond to your questions.

7/17/87

NORTHEAST UTILITIES
THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 721-2625

PHILIP T. ASHTON
SENIOR VICE PRESIDENT &
GENERAL MANAGER — GAS GROUP

July 17, 1987

Mr. James R. Keys
Vice President, International Energy
Tennessee Gas Transmission Company
1010 Milam
Houston, Texas 77002

Dear Jim:

On behalf of the three Connecticut distribution companies, thanks very much to you and your associates for the presentation made to us yesterday on an alternate proposal to move some Canadian gas to us via the Niagara frontier and Tennessee's transmission system. Our comments which follow will address the proposal first on an overall conceptual basis and then on some of the substantive details.

Perhaps our biggest disappointment is that the proposal offered is at best only a possible partial solution for the Connecticut companies and none at all for the other shippers on Iroquois. In contrast, the Iroquois project, which your proposal intends to supplant, is a regional solution to both regional and individual company needs. In part, the attributes of Iroquois include diversity of supply, increased reliability of supply, a major reinforcement of the supply system to Long Island and the New York common system, and greater geographical access to markets in Connecticut. In contrast, the Tennessee proposal offers only some diversity of supply and this just to the Connecticut companies. These deficiencies we believe are very serious and, absent any special benefits, reinforce our support of the Iroquois project.

The Tennessee proposal as presented is not sufficiently detailed or documented to enable us to believe it might offer any benefit to our companies. This would be true if Iroquois did not exist but is even more of issue given the very elaborate detail available on Iroquois. Accordingly, to enable us to make a more definitive assessment of your proposal, we request the following additional information.

1. A reconsideration of the volumes to be transported in the light of your own market data. It was explicitly clear that these two were mutually contradictory in your presentation as our comments at the time indicated.

2. Notwithstanding the point just made, we request a re-evaluation of the market data itself. Considering the substantial lack of market penetration in our service area, we find your attitude in this regard not unlike my going to a clothing store to purchase a 43 extra-long suit and being told that I will be allowed to buy only a 36 short! It just doesn't fit.

3. The total volumes to be transported of 78,500 Mcf/day are characterized as being the "optimum expansion volume on the 200 line." Please elaborate and provide cost-sensitive data to indicate just how "optimum" that quantity is.

4. The cost of incremental facilities in Canada necessary to move gas to the Niagara frontier was characterized as being "small" and "not substantial." This is contrary to our understanding and therefore we request that you provide a detailed estimate of those facilities. Also, please indicate the source of your data and whether or not there is any willingness on the part of any Canadian pipeline to undertake such an expansion. Please provide us with the name of your contact in Canada for such information.

5. Please indicate your assessment as to whether or not there would be any support for a transfer of export licenses from Iroquois, Ontario to Niagara. Also provide the basis for your conclusion and give the name of any contacts made which may have provided a basis for your opinion. Given that these export licenses are in part controlled by Alberta Northeast, how does Tennessee propose to overcome the potential veto by participants outside Connecticut whose interests would be undercut by the Tennessee proposal? It is not within our power to overcome this dilemma in that the problem is caused by the proposal being a special deal for Connecticut alone with no benefits to others, especially so in contrast to Iroquois.

6. Please provide the schedule for the proposed alternative project. This should be sufficiently detailed to enable us to judge its credibility.

7. The projected cost of the 11.5 mile 16-inch New Haven lateral works out to be slightly over $577,000 per mile including cost of new right-of-way. This is in sharp contrast to a figure of $714,000 per mile used in the Iroquois project for a 12-inch line through an area where we strongly believe real estate costs to be substantially lower. One of these cost figures has to be wrong; either the Tennessee figure is too low or the Iroquois figure is too high. Accordingly, we request that you provide a detailed breakdown of your cost estimate and a map showing the specific route you propose.

8. In a comparable vein, please provide details of the cost estimate for the proposed 31.5 mile looping of the 200 line.

9. Please provide full details of all assumptions used in the development of rates for your alternative.

10. Please provide details of any improvements required on the Connecticut laterals due to this proposed alternative. Costs and any impact on rates should be provided also.

At a minimum, it is only after satisfactorily receiving your responses to the above points that we would begin to consider your alternative seriously.

I would again reiterate our request that Tennessee reconsider its persistent opposition to Iroquois and join with the sponsors of the project in developing a better solution to all the needs Iroquois addresses. Specifically, we request that Tennessee reconsider its denial of access to facilities already in place for Iroquois gas to be delivered to Farmington. A tie between Iroquois and the Tennessee 300 line in the Shelton-Milford area would require little if any new facilities on the Tennessee system, could increase the delivery capability of Tennessee to the region, would have no environmental impact, would eliminate construction of Iroquois' lateral to Farmington, and probably would reduce ratepayer costs.

In summary, we are willing and anxious to work with Tennessee in finding and developing a better solution to our several needs. We simply ask that you be willing to work with us on a realistic basis.

Sincerely,

Philip T. Ashton

PTA/kdd

c: Messrs. V. H. Frauenhofer
J. S. Filbert, Jr.
J. P. Healy, Sr.
J. H. Larson
J. J. Smith

NORTHEAST UTILITIES
THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 721-2625

PHILIP T. ASHTON
SENIOR VICE PRESIDENT &
GENERAL MANAGER — GAS GROUP

July, 1987

Dear Decisionmaker:

As a decisionmaker deeply involved in the challenges facing Connecticut, you will find the attached material of vital interest.

It deals with the issue of Connecticut's natural gas supplies. Included are excerpts from:

- o Connecticut's 1987 Energy Assessment Report which cites among the eight major components of the state's energy policy these two:

  "diversify the state's energy supply mix" and

  "where practicable, replace energy resources vulnerable to interruption due to circumstances beyond the state's control with those less vulnerable."

- o Filed testimony to "DPUC Investigation Into Connecticut Gas Utilities' Forecasts of Supply and Demand."

- o A briefing paper entitled "The Supply of Gas--History and Outlook" by John J. Smith, vice president, Northeast Utilities.

- o Two consultant reports on the gas supply future of Connecticut--The Rudden Report, commissioned by the Iroquois Gas Transmission System and the QED Report, commissioned by Connecticut's Energy Division--and the responses they elicited.

- o A report entitled "Overview of Recent Oil and Gas Developments" compiled by the staff of the New York Public Service Commission's Gas Division.

Northeast Utilities, Connecticut Natural Gas Corporation, and The Southern Connecticut Gas Company have joined with TransCanada Pipelines Limited, a major pipeline transmission company, and other gas distributors in the Northeast to develop the Iroquois Gas Transmission System. The 355-mile line will connect TransCanada's System at Iroquois, Ontario, and transport the gas to Connecticut and New York. The pipeline will have the capacity to move 353 million cubic feet of gas per day. Connecticut customers would get 38 percent of that gas, bringing our state more in line with the rest of the nation in terms of its access to natural gas.

of gas per day. Connecticut customers would get 38 percent of that gas, bringing our state more in line with the rest of the nation in terms of its access to natural gas.

We are involved in this project for two major reasons:

- o Connecticut needs new gas supplies to sustain its economy.
- o We believe--and state energy policy backs this up--that our state's dynamic economy should not continue to rely on oil for 63 percent of its total energy mix when the national average of oil reliance is 43 percent. Our state's two existing gas transmission pipelines are operating at full capacity today and cannot possibly fill the needs of customers in the 1990s.

During the past few months, we have conducted briefings on this subject throughout the state. We have been impressed by the sincere, searching questions and concern for the state's energy future we have encountered. The "need" issue has evoked many questions. This material is designed to demonstrate that there is substantial documentation to support the need for both the gas and the pipeline.

Please take some time from your busy schedule to look through the material; it explores an issue of crucial importance to our state. If you have questions or wish to receive the voluminous supporting material, please call:

Jacqueline L. Harris
at (203) 665-3204

In addition, we urge your support of our proposal to have an evidentiary hearing conducted in Connecticut under the auspices of the Federal Energy Regulatory Commission and in Washington under the auspices of the Economic Regulatory Administration. We would welcome the opportunity to address the need question as well as opposing viewpoints or competing proposals in an evidentiary forum in which need and related issues can be fully aired. This would certainly facilitate a valid examination of Connecticut's energy future and the role which gas must play. We would hope that you would endorse such a proceeding and will lend your voice to our recommendation.

Sincerely,

THE NEED FOR NATURAL GAS IN CONNECTICUT

Excerpts from reports, studies and other material concerning the state's energy future

THE NEED FOR NATURAL GAS IN CONNECTICUT

Excerpts from reports,
studies and other material
concerning the state's energy future.

TABLE OF CONTENTS

Section One: The Final Report of the Energy Division of the Office of Policy and Management, State of Connecticut, January 15, 1987

Section Two: Letters and Proclamations of Public Officials, 1981 through 1985

Section Three: Overview of Recent Oil and Gas Developments, State of New York Public Service Commission, Gas Staff, October 20, 1986

Section Four: Natural Gas: Time For A Comprehensive Solution, A Report to the President of the United States, United States Department of Energy, March 1987

Section Five: The Supply of Gas--History and Outlook, John J. Smith, Vice President, Northeast Utilities, January 1987

Section Six: Testimony of John J. Smith, Vice President, Northeast Utilities, Docket No. 86-10-13--DPUC Investigation Into Connecticut Gas Utilities' Forecast of Supply and Demand, November 1986

Section Seven: Connecticut Energy, Economic and Environmental Benefits Study, Prepared for Iroquois Gas Transmission System by R. J. Rudden Associates, Inc., Wellesley, Massachusetts, November 1986

An Evaluation of the Rudden Report, Congressional Research Service, Library of Congress, January 6, 1987

Rebuttal to the Congressional Research Service Report, R. J. Rudden Associates, Inc.

An Estimate of the Demand For Natural Gas in Connecticut, Congressional Research Service, Library of Congress, April 10, 1987

Response to Congressional Research Service (April 10, 1987) Estimate of the Need For Natural Gas in Connecticut, Philip T. Ashton, Senior Vice President, Northeast Utilities, April 10, 1987--Printed in Full

Section Eight: The Economic Impact of The Iroquois Pipeline on Connecticut, A Report Submitted to The Energy Division of The Connecticut Office of Policy and Management by QED Research, Inc., Palo Alto, California, February 5, 1987

Response to the QED Report, Iroquois Gas Transmission System, March 20, 1987

Section Nine: An Evaluation of Tennessee Gas Pipeline's Alternative Proposal to the Iroquois Gas Transmission System Pipeline Proposal, by Iroquois Gas Transmission System, February 11, 1987

Section Ten: Color Photo of a Gas Transmission Pipeline Right-Of-Way in Shelton, Connecticut, taken in November 1986

The Final Report of the Energy Division of the Office of Policy and Management, State of Connecticut, January 15, 1987

The Energy Division has as its charge to provide the Governor and other Connecticut leaders with an assessment of the state's energy situation, a review of state agencies' policies as they apply to state energy policy, and recommendations for the implementation of the state's energy policy. Each year, the Division issues a report on these matters.

THE FINAL REPORT OF THE ENERGY DIVISION OF THE OFFICE OF POLICY AND MANAGEMENT, STATE OF CONNECTICUT

January 1987

EXCERPTS

The Connecticut gas market is generally considered to be unsaturated, or having unmet potential for growth. Such growth could take the form of additional customers on existing lines, extension of lines to serve new users of gas, cogeneration, and conventional electrical generation. The present constraint on growth in the Connecticut market is supply. Although there is an excess deliverability of natural gas nationally, the two pipelines serving the state are at capacity, and the market is not expected to grow substantially until additional sources of supply are secured. . .[p. 14]

Canadian hydroelectricity and natural gas are competing for a share of the U.S. market, particularly in the Northeast, offering some additional diversification and incremental supply at a time when natural gas reserves in domestic producing areas appear to be diminishing. Currently a proposed gas line for the state is under discussion. . .[p. 5]

...risks and uncertainty are never completely out of the energy picture. As we enter 1987, there are indications that OPEC is attempting to reassert its influence in oil supply and pricing. Petroleum and natural gas imports are certain to increase, while the replenishment of domestic volumes through intensified exploration and development is endangered as long as energy prices remain low. . .[p. 5-6]

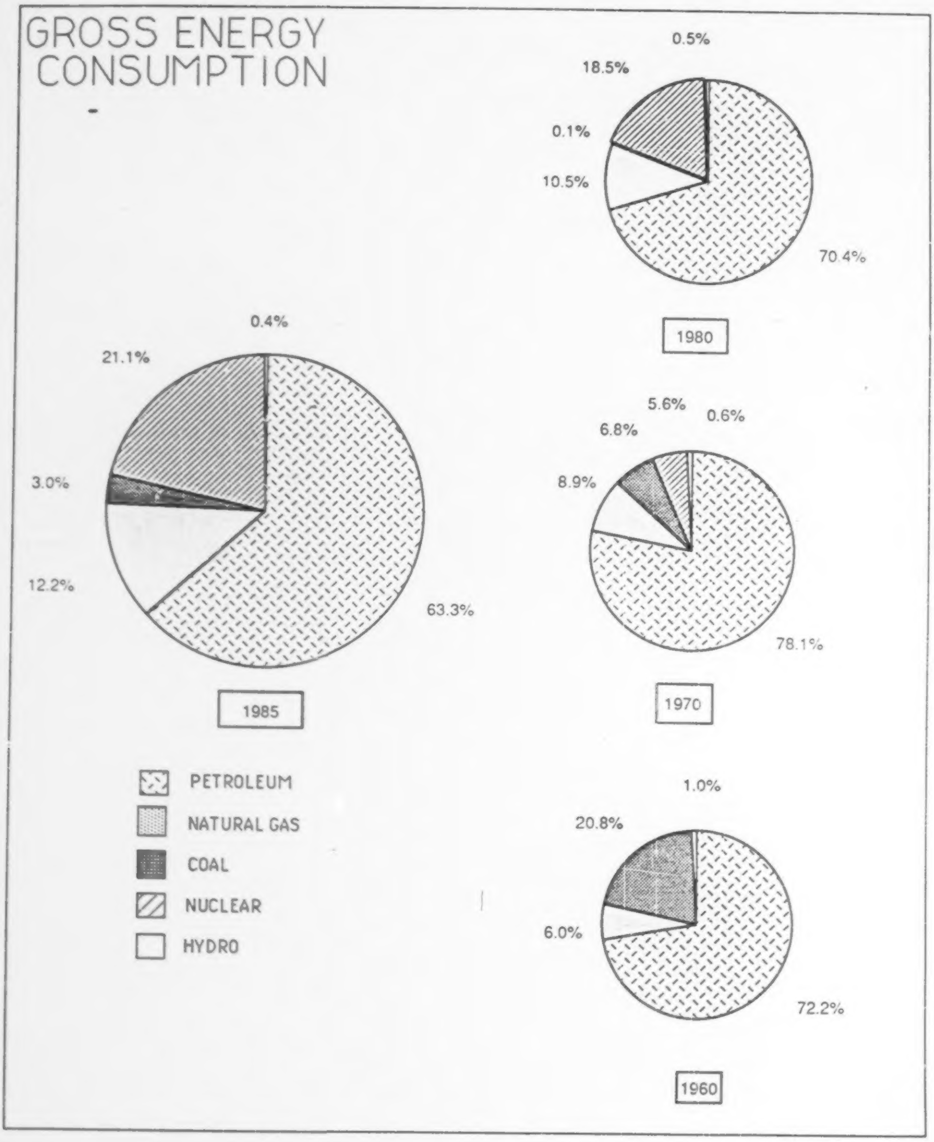
...in contrast to the beneficial effects accruing to oil consumers, lower oil prices are causing serious economic problems for the exploration and development sector of the domestic oil industry. Major oil companies are selling assets, streamlining operations and shutting in uneconomic production. According to the American Petroleum Institute, estimated production outside Alaska for the first 8 months of 1986 had dropped at a rate equivalent to an annual rate of half a million barrels per day or a 7% decline... Continued low oil prices will have significant long term implications for crude oil reserve replacement versus escalating import dependency, given the long lead times necessary to find and develop new oil fields. . .[p. 8]

A factor that certainly affects (natural gas) price in Connecticut, but that cannot be assessed precisely, relates to the fact that the state market, which is served with only two pipelines, is subject to less competition between suppliers than is the case in areas of the country less remote from the source. Thus, competition in Connecticut is primarily gas-to-oil and not gas-to-gas. Nevertheless, the supply of western Canadian natural gas made available by the Boundary project in November 1984 is priced very competitively, and through displacement of synthetic natural gas and other high-priced peak-season supplements to pipeline supply has already operated to reduce the cost of gas in Connecticut. . .[p. 12]

Historically, local distribution companies (LDC's) in Connecticut have competed with other areas of the country for gas supplies. Since 1983, when national demand for natural gas dropped, there has been a so-called excess deliverability of the commodity, but because of capacity limitations of the pipelines serving the state, the LDC's are still unable to secure sufficient supply to meet market growth. . .[p. 13]

(One part of a least cost strategy for development of future electricity resources includes) Integration of electricity planning with overall energy planning. For example, supplies of natural gas and expanded gas transmission facilities to New England may have significant implications for electricity demand and supply. . .[p. 18]

CHART I-2


GROSS ENERGY CONSUMPTION
0.5%
18.5%
0.1%
10.5%
70.4%
1980
0.4%
21.1%
3.0%
12.2%
63.3%
1985
5.6%
0.6%
6.8%
8.9%
78.1%
1970
PETROLEUM
NATURAL GAS
COAL
NUCLEAR
HYDRO
1.0%
20.8%
6.0%
72.2%
1960

Letters and Proclamations of Public Officials, 1981 through 1987

These words of members of Congress, New England governors and utility regulators bear witness to their support for the import of Canadian natural gas.

NEW ENGLAND CONFERENCE OF PUBLIC UTILITIES COMMISSIONERS, INC.

38 CHAUNCY STREET, SUITE 1204, BOSTON, MASSACHUSETTS 02111 617/542-5504

DON R. FINK, EXECUTIVE DIRECTOR AND SECRETARY
HOLLY E. PECK, STAFF ATTORNEY
CATHERINE ST. PHILIP-KODOIS, ADMINISTRATIVE ASST.

THOMAS H. FITZPATRICK, PRESIDENT AND TREASURER
CHAIRPERSON, CONNECTICUT PUBLIC UTILITIES CONTROL AUTHORITY
V. LOUISE McCARREN, VICE-PRESIDENT
CHAIRMAN, VERMONT PUBLIC SERVICE BOARD

A Resolution Concerning the Need for Expeditious U.S. Approvals for Canadian Imports of Natural Gas to New England

WHEREAS New England remains heavily dependent on imported oil to supply in excess of sixty-four percent of its total energy requirements compared to eighteen percent nationally, and the region has actively supported conservation, alternative energy projects and competitively priced energy imports from Canada to provide a more balanced energy mix;

WHEREAS New England has a clearly articulated policy to reduce its dependence on imported oil, including active support for the Boundary Gas and Algonquin import projects by the New England Governors, Public Utilities Commissions and State Energy Offices;

WHEREAS The present natural gas surplus will likely disappear in the mid-eighties timeframe and further delays in the regulatory approval process for these Canadian gas import projects and the transportation facilities they put in place can lead to potential supply problems, and higher energy costs for the entire Northeast;

WHEREAS present gas pipeline capacity limits any significant benefits this short-term domestic surplus could provide the Northeast due to the lack of transmission facilities to supply additional gas during the heating season, and present gas supply forecasts to New England distribution companies show declining deliveries over the next decade and beyond.

NOW THEREFORE BE IT RESOLVED that NECPUC reiterates its continuing support for competively priced Canadian gas imports for New England and strongly urges the Federal Energy Regulatory Commission to approve expeditiously the Boundary Gas Project now entering hearings before that agency; similiarly, the Conference strongly urges the early review and approval of the Algonquin import project at Niagara, now awaiting action at the Economic Regulatory Administration and the Federal Energy Regulatory Commission.

Attest: 6/12/83

Congress of the United States
House of Representatives
Washington, D.C. 20515

July 9, 1981

The Honorable Ronald W. Reagan
The President
The White House
Washington, D.C. 20500

Dear Mr. President:

As you know, in January, Massachusetts experienced a severe natural gas supply shortage. New supplies are needed for the next heating season in order to be sure that the same situation does not arise again. We feel that it is very important that we work together to bring additional pipeline natural gas volumes to New England.

Regulatory approval is needed for the Boundary Gas Project which we believe will provide both the firm gas supply and the pipeline capacity needed to alleviate this problem.

As early approval of the project by the Federal Energy Regulatory Commission and the Economic Regulatory Administration will help to encourage favorable action by the Canadian National Energy Board later this year. Canadian natural gas supplies, including those we will receive under the Boundary project, are necessary to ensure the long term integrity of the natural gas system in New England, where, because of our weather fluctuations, as we have seen, significant peak load problems can occur.

We would appreciate your help with the regulatory approvals necessary in order to be sure that the citizens of Massachusetts will not again be subject to the kind of potential supply interruptions we faced last January.

Sincerely,

Senator Edward Kennedy
Paul Tsongas
Senator Paul Tsongas
Thomas P. O'Neill, Jr.
Speaker Thomas P. O'Neill, Jr.

Cong. Edward Boland
**
Cong. Silvio Conte
Cong. Brian Donnelly

Cong. Joseph Early
Barney Frank
Cong. Barney Frank
Cong. Margaret Heckler

Cong. Edward Markey
Cong. Nicholas Mavroules
Cong. Joseph Moakley

Cong. James Shannon
Cong. Gerry Studds

** signed [illegible]

THE CITY OF NEW YORK
OFFICE OF THE MAYOR
NEW YORK, N.Y. 10007

September 28, 1983

ERA Submission
See MJC/F

Mr. Eugene H. Luntey
President
Brooklyn Union Gas Company
195 Montague Street
Brooklyn, New York 11201

Dear ~~Mr. Luntey:~~ Gene

I am extremely concerned about the security and cost of the long-term supply of natural gas in New York City. The average purchased cost of natural gas has more than doubled since 1978, increasing the cost of doing business in New York City. Many of our homes are heated by gas and the rapid increase in prices has caused serious hardship for our residents. The City welcomes all initiatives targeted at ensuring adequate future supplies and minimizing the cost of gas in the area.

New York City supports the cooperative efforts undertaken by Brooklyn Union Gas Company and other regional gas distribution companies through the Boundary Gas Incorporated project to secure imported natural gas from Canada. This venture will further diversify and widen the City's supply of natural gas. I have noted reports of the decreasing percentage of finds among new gas wells that are drilled and the fall-off in gas exploration activity as a result of the current state of our natural gas market. It is of primary importance that gas supplies, especially during peak winter periods, be sufficient to meet the needs of the City's consumers.

The City has been actively monitoring the various legislative and regulatory proposals to mitigate the current distortions in the natural gas markets. The entrance of these new competitively priced supplies into the market will definitively contribute to the removal of some of the anti-competitive constraints that exist.

I appreciate Brooklyn Union's initiative in developing a system that can respond quickly and economically to change in market conditions.

Yours truly,

Ed

Edward I. Koch
MAYOR

sb

[illegible]

NEW
ENGLAND
GOVERNORS'
CONFERENCE, INC.

76 Summer Street, Boston, Massachusetts 02110 /617/423-69

October 4, 1983

Honorable Thomas P. O'Neill, Jr.
Speaker of the House of Representatives
Washington, D.C. 20515

Dear Mr. Speaker:

The New England Governors' Conference strongly supports and encourages the importation of competitively priced Canadian natural gas to New England. New England, which is at the end of the domestic natural gas pipeline system, is especially vulnerable to shipment delays and transportation costs. The importation of competitively priced Canadian gas to New England from both Western Canada and potentially huge Eastern Canadian offshore reserves will enhance our region's economic development.

A resolution which the New England Governors' Conference, Inc. adopted on September 16, 1983, concerning this issue is attached. I urge you to review this resolution, especially its final provision, "the New England Governors request the New England Congressional Delegation to oppose legislation banning importation of Canadian gas which would be competitively priced in the New England market."

Legislation may soon be considered by the U.S. House of Representatives and the United States Senate which would limit or prohibit the importation of foreign natural gas. Such legislation will have a harmful effect on New England. I urge you to consider the beneficial impact of Canadian natural gas on New England and act to protect our vital economic and energy interests.

I would be pleased to discuss this issue with you at your convenience.

Sincerely,

William A. O'Neill
Chairman
Governor of Connecticut

Attachment

Governor
WILLIAM A. O'NEILL
Connecticut
CHAIRMAN

Governor
J. JOSEPH GARRAHY
Rhode Island
VICE CHAIRMAN

Governor
JOSEPH E. BRENNAN
Maine

Governor
MICHAEL S. DUKAKIS
Massachusetts

Governor
RICHARD A. SNELLING
Vermont

Governor
JOHN H. SU
New Ham

DOCUMENT: 850-22/023

June 19-21, 1983
New England Governors and
Eastern Canadian Premiers
Eleventh Annual Conference

Onzième conférence annuelle
des Gouverneurs de la Nouvelle-
Angleterre et des Premiers Ministres
de l'est du Canada
19-21 juin 1983

RESOLUTION 11-7

EASTERN NATURAL GAS PROJECTS

WHEREAS, at the 9th Conference a resolution was adopted to encourage additional natural gas use in New England and Eastern Canada; and

WHEREAS, this resolution supported "the development of natural gas projects between Canada and New England"; and

WHEREAS, these projects have now been approved by Canada's National Energy Board and approval is expected from United States federal regulatory bodies; and

WHEREAS, the future economic development and well-being of the region will be greatly enhanced by additional projects to increase the use of natural gas and reduce importation of oil; and

WHEREAS, exploration for oil and natural gas on-shore and off-shore contiguous to the Eastern provinces has achieved outstanding success; and

WHEREAS, the development of a gas field in the Sable Island area represents a safe, secure energy supply to the region; and

WHEREAS, this development once established may lead to further developments;

NOW THEREFORE BE IT RESOLVED that the Conference of New England Governors and Eastern Canadian Premiers endorses and supports as a high priority exploration for oil and natural gas on-shore and off-shore contiguous to the Eastern provinces, and hereby supports the planning, development and construction of economically viable natural gas pipelines from the Sable Island area through the Eastern provinces and the New England states for the transmission of natural gas available from all sources to the Eastern provinces, New England and other United States markets.

ADOPTED BY THE 11th CONFERENCE OF NEW ENGLAND GOVERNORS AND EASTERN CANADIAN PREMIERS

Premier James M. Lee
Cochairman

June 21-83
Date

Governor William A. O'Neill
Cochairman

June 21, 1983
Date

Vol. 19, No. 115 Item 3
The Hartford Courant
June 16, 1987
Page C2

Energy cooperation stressed at meeting in Canada

By SUSAN E. KINSMAN
Capitol Bureau Chief

HALIFAX, Nova Scotia — The New England governors and eastern Canadian premiers renewed their commitment Monday to cooperative energy development and commerce, despite uncertainty about a free-trade agreement being negotiated by U.S. and Canadian officials.

Energy, the issue that first brought the leaders of the six New England states and five eastern provinces together 14 years ago, remained a focal point of their 15th annual meeting.

A resolution approved during the opening session reaffirmed as a "high priority" the development of natural gas and oil deposits, under strict environmental safeguards, on the continental shelf off the eastern Canadian provinces and encouraged active support of those projects.

Copies of the resolution will be sent to Washington and to Canadian leaders in Ottawa.

The leaders also agreed to convene an international forum next spring on protection of energy sources and energy trade. They also agreed to present the energy-emergency plans of the New England states and five eastern provinces — Quebec, New Brunswick, Newfoundland, Nova Scotia and Prince Edward Island — at the forum.

But, like the heavy fog that shrouded this coastal city as the conference began, uncertainty about future trade policies between the countries hung over the talks.

Negotiators for Canada and the United States have until Oct. 5 to present a bilateral trade agreement to Congress, which has until Jan. 3 to act on the agreement. The goal is to avoid U.S. action to impose restrictive tariffs, which are seen as a threat to trade relations.

"The future success of what organizations like this can do depends on what happens in the next few months. If there isn't an agreement, it will impact quite negatively on this conference," said A. Brian Peckford, premier of Newfoundland. "This conference has led the way to hopefully what has become enough common ground for our two countries to sign a trade agreement."

One source of common ground has been the successful agreement to export hydroelectric power from Quebec to the New England states, said Premier Robert Bourassa of Quebec.

Connecticut Gov. William A. O'Neill said such energy trade is essential in Connecticut as a protection against future disruptions of oil from the Middle East.

"You're talking about people who in the past have jacked the prices their own way. That bothers me, and it scares me as well. I think, if we were more dependent upon Canada and less dependent on the Middle East, we would be far better off as a country ourselves," he said.

"Certainly, the best situation would be to be totally dependent upon ourselves and independent of the world, but that's not the way it's going to be," O'Neill said.

While acknowledging he had little control over the situation, O'Neill said he hoped a trade policy could be worked out between the two national governments.

"The federal governments of Canada and the United States have been cooperating with one another in almost all ways for years. We don't agree on all issues, but I feel [we] have a lot in common," O'Neill said.

Although the premiers of the five eastern provinces were present, only O'Neill and Vermont Gov. Madeleine M. Kunin, the co-chairwoman of the conference, made it for the start of the conference. John Buchanan, premier of Nova Scotia, is the other co-chairman.

The dense fog forced the Halifax airport to close for a time Sunday and kept New Hampshire Gov. John H. Sununu away. Massachusetts Lt. Gov. Evelyn F. Murphy was able to land Monday. Murphy is representing Gov. Michael S. Dukakis, who is busy campaigning for the Democratic presidential nomination.

Budget debates and other legislative business in Rhode Island and Maine kept governors Edward D. DiPrete and John R. McKernan Jr. from attending. The governors, however, sent representatives empowered to vote on resolutions.

- Overview of Recent Oil and Gas Developments, State of New York Public Service Commission, Gas Staff, October 1986

This report was done by the staff of the New York public utility regulatory agency for the commissioners. Its intent is to "show how many factors come into play or are triggered by an abrupt change in the price of crude oil and the complications that arise from drastic rapid changes in these prices...there isn't any doubt that flexibility in state and federal policies is needed to best cope with these circumstances."

OVERVIEW OF RECENT OIL AND GAS DEVELOPMENTS, STATE OF NEW YORK PUBLIC SERVICE COMMISSION

October 20, 1986

EXCERPTS

The AGA(American Gas Association) study projects natural gas consumption to increase on average by about 1.0 % annually between 1985 and 1990 to a level of 18.5 TCF(trillion cubic feet). Similarly, the EIA(Energy Information Administration) "Annual Energy Outlook" projected that total gas consumption would increase to about 19 TCF by 1990...[p.17]

The foregoing details the decline of the drilling industry in the United States, and points out the potential dangers of that decline, in the form of inadequate future supplies. Gas imported from Canada and to a less certain degree from Mexico could serve to fill the gap of our own declining reserves. Canada has abundant reserves, and it must be considered an alternative to increased domestic drilling...[p.27]

Conclusions and Recommendations

For the most part price (and thus incentive) factors that influence exploration and development are beyond our control. There are, however, actions that may significantly impact upon these factors. It is our recommendation that we support the following actions:

1. Deregulation of all gas provided that existing contracts are subject to renegotiation.
2. Support open transportation measures.
3. Support additional importation of Canadian supplies to augment domestic sources. [p.30]

Natural Gas: Time For A Comprehensive Solution, A Report to the President of the United States, United States Department of Energy, March 1987

This briefing paper provides an overview of the supply, pricing and regulatory history of natural gas and makes recommendations for future federal action.

- NATURAL GAS: TIME FOR A COMPREHENSIVE SOLUTION, A REPORT TO THE PRESIDENT OF THE UNITED STATES, UNITED STATES DEPARTMENT OF ENERGY

March 1987

EXCERPTS

The recent collapse in world oil prices has led to a significant reduction in levels of drilling activity and a decrease in U. S. oil production. These developments have encouraged rising oil imports, which at current trends could reach 50 percent of total U. S. consumption. Growing import dependence places our national security at serious potential risk through possible disruptions of supplies.

It is imperative that the United States take full advantage of those energy sources that can economically displace imported oil...[p.114]

Certain (gas) transmission segments, however, now operate at full capacity during peak delivery periods...[p. 118]

In an emergency, secure supplies of natural gas can replace oil in many applications, thereby freeing up available oil supplies for those uses in which other fuels cannot substitute...[p.120]

This Administration has extended the policy goal of gas market competition to imports that can supply natural gas to U. S. consumers at competitive prices and be responsive to changes in markets served. Imports from reliable sources can provide a stable and secure addition to domestic resources. Although imports make up only about 5 percent of U. S. consumption, they have contributed to a decline in the average prices U. S. consumers pay for natural gas. Eliminating the remaining barriers to trade will ensure that the lowest cost supplies of natural gas are brought to consumers...[p.126]

- The Supply of Gas--History and Outlook, J. J. Smith, Vice President, Northeast Utilities, January 1987

This briefing paper was submitted as part of Smith's testimony to Docket 86-10-13; DPUC Investigation Into Connecticut Gas Utilities' Forecast of Supply and Demand, November 1986. It was reissued as a backgrounder in January 1987. The paper provides a detailed description of the history of gas regulation and its effect on supply and price.

THE SUPPLY OF GAS--HISTORY AND OUTLOOK
J. J. SMITH, VICE PRESIDENT, NORTHEAST UTILITIES

January 1987

EXCERPTS

Local distribution companies, although regulated as monopolies, compete across all market segments at the end-user level with alternate forms of energy. While existence of the distributor's franchise prevents competition between gas utilities within the same geographic area, gas is in direct competition with fuel oil and electricity for space heating and water heating and again with electricity for cooking and air-conditioning. Gas also competes with several grades of fuel oil in the very price elastic industrial and electric power generation markets. A local distribution company operates in a competitive environment but its rates are set by regulatory cost of service theory rather than by the supply and demand of the marketplace. The bulk of the distributor's revenue is passed on to its suppliers for gas purchases, taxes are set by the government and debt/equity expenses by the financial marketplace, leaving precious little cost left under the direct control of the local distributor. . . [p. 1-2]

In a dissenting opinion in the Phillips case, Justice William O. Douglas predicted years of confusion as the FPC (now FERC) attempted to regulate thousands of producers. . .[p. 3]

Time proved Justice Douglas correct as the FPC tried and failed, with a variety of schemes, to regulate prices. At the consumer end, demand was growing at a rapid pace due to the regulated (interstate) price position of natural gas vs. unregulated alternate fuels such as coal or oil. Discouraged by artificially low prices in the interstate market, producers sold as much gas as they could in the still unregulated intrastate market and only sold to interstate pipelines as a last resort. By the early 1970s interstate pipelines faced a severe demand/supply imbalance and began to allocate what supply they did have using FPC ordered curtailment priorities. . .[p. 4]

By 1977 the natural gas curtailment crisis had reached such proportions that schools and industries were being shut down in certain parts of the country during extremely cold weather as existing supplies were allocated to home heating. The crisis prompted the United States Congress to pass the Natural Gas Policy Act of 1978 (NGPA) in an effort to increase domestic production of natural gas. . .[p. 4-5]

The effect of the NGPA was almost immediate. In the seven years preceding enactment of the NGPA, reserve additions in the lower 48 states averaged 45% of production (see Figure 1). In 1979 reserve additions were 70% of production and from 1980 through 1984 reserve additions averaged nearly 100% of production. . .[p. 5]

In 1984, 95% of the total gas produced came from conventional lower 48 formations. It is estimated that by 1990, 90% of production will still be supplied from this domestic source (see Figure 4). By way of contrast, DRI estimates that by 1990 only 38% of the total U.S. supply of oil will come from lower 48 production with an additional 9% coming from Alaskan oil (see Figure 5). . .[p. 7]

Estimates for the year 2010 call for 62% of U.S. gas needs to be met by lower 48 production, 7% from Alaskan gas, 17% from domestically produced supplementals such as coal gasification, 11% from imports of gas primarily from Canada, and 3% from liquefied natural gas likely to be supplied from sources outside North America (Figure 6). Again, the oil supply outlook for 2010 shows an estimated 71% of the U.S. market being supplied by imports (Figure 7). . .[p. 7]

As gas supply availability has moved from regulatory induced shortage to surplus and eventually to a balance, so too has the gas industry begun movement toward a balanced marketplace. . . [p. 8]

After being driven to the brink of disaster, the natural gas industry is showing signs it will survive deregulation. . . [p. 9]

Testimony of John J. Smith, Vice President, Northeast Utilities, Docket No. 86-10-13--DPUC Investigation Into Connecticut Gas Utilities' Forecast of Supply and Demand, November 1986

This testimony responds to the Department of Public Utility Control's. request for information "to apprise the Department and the public of the natural gas needs of our state and of the adequacy of the planning to meet those needs."

TESTIMONY OF J. J. SMITH, VICE PRESIDENT, NORTHEAST UTILITIES DOCKET NO. 86-10-13--DPUC INVESTIGATION INTO CONNECTICUT GAS UTILITIES' FORECAST OF SUPPLY AND DEMAND

November 1986

EXCERPTS

On Forecasting

The company projects a compound sales growth rate of 1 percent between 1986 and 1995 without any new marketing initiatives. . . [p. 7]

This forecast is "traditional" in the sense that only changes in the economy, price effects, and current marketing and conservation efforts are taken into consideration. It does not reflect any assumptions about the demand for gas that could result from cogeneration installations, pipeline extensions, or new marketing initiatives. . .[p. 7-8]

The residential gas model forecasts sales to single and multi-family homes in each of the following markets: the existing market, the market created by new households, customer conversions to and away from gas, and the upgrading of low-use gas customers to include gas space and water heating. . .[p. 9]

The number of new customers is derived from estimates of year-to-year changes in housing stock and the relationship between the price of gas and oil. The model's output shows that the number of residential gas customers will increase by almost 15,000 between 1985 and 1995, with the average use per customer increasing by just under 1 percent per year in consideration of the fact that each new customer is expected to have gas heating. . .[p. 10]

For the Gas Business, demand forecasting is taking on new importance as new sources of supply become available. In the more competitive environment created by the National Gas Policy Act and deregulation, local distribution companies look toward diversifying their supply contracts and negotiating better and more flexible price agreements. Short-term supply planning has

always been the very essence of the gas business, for it has to deal with sharper seasonal and diurnal fluctuations in customer demand than the electric business. Longer-term planning, recently stimulated by policy makers who continue to seek to reduce Connecticut's dependence on imported oil, should enable the Gas Business to plan for the expansion of its market share in an orderly and cost-effective manner. . .
[p. 22-23]

In making supply decisions, the local gas distribution company (LDC) must ensure the availability and reliability of future supplies for its firm customers by securing long-term contracts. These long-term contracts, however, must be flexible enough to permit substitution of less costly supplies when available... The LDC is constrained in its competitive efforts by the availability of pipeline capacity to transport the natural gas to the gates of its own distribution system. Unlike LDCs in other areas of the country, the Connecticut gas distribution companies have long been at a disadvantage because they have had to depend on only two capacity-constrained transmission companies for their pipeline supplies and are thus limited in their ability to purchase long-term supplies competitively. . .p. 24-25]

The Company expects to experience a peak-day deficiency by 1991, given the reference demand forecast, the modeled peak-day sendout, and the supplies of gas currently available or contracted for. Even without any of the marketing initiatives described in Part III, and without any gas supplies for cogenerators or for NU power plant use (beyond Montville 5), the contracted pipeline supplies and propane capacity will be inadequate to meet load growth well before the mid-1990s. . .[p. 39]

Meeting Future Propane Demand

During the summer of 1988, some expansion of propane storage capacity will be necessary. . .[p. 41]

In January, 1990, there is a total propane capacity shortage of six 80,000 tanks and 55 railcars (total shortage of 1.8 million gallons effective). Real difficulties will be experienced in finding a place to store 21 railcars which cannot fit on Company property. . .[p. 41]

In January 1991, there will be barely enough propane vaporization capacity to meet firm requirements. . .[p. 42]

Therefore, prior to January 1991 a large propane storage facility equivalent to at least two-thirds of the eventual storage needed by 2005 should be completed. This will prove to be extremely difficult to accomplish for several reasons. . .[p. 42]

The very serious limitations upon adding peak-shaving facilities to meet the growing peak day supply deficiency leads the Company to conclude that additional pipeline capacity is the only viable alternative to its problem. . .[p. 44]

New Pipeline Supplies

A new supply of natural gas, according to Rudden (p. 19), would provide a mechanism for the increased penetration of gas into existing and new markets and would enable gas distribution companies to select a least cost gas supply mix in a less constrained environment. . .[p. 47]

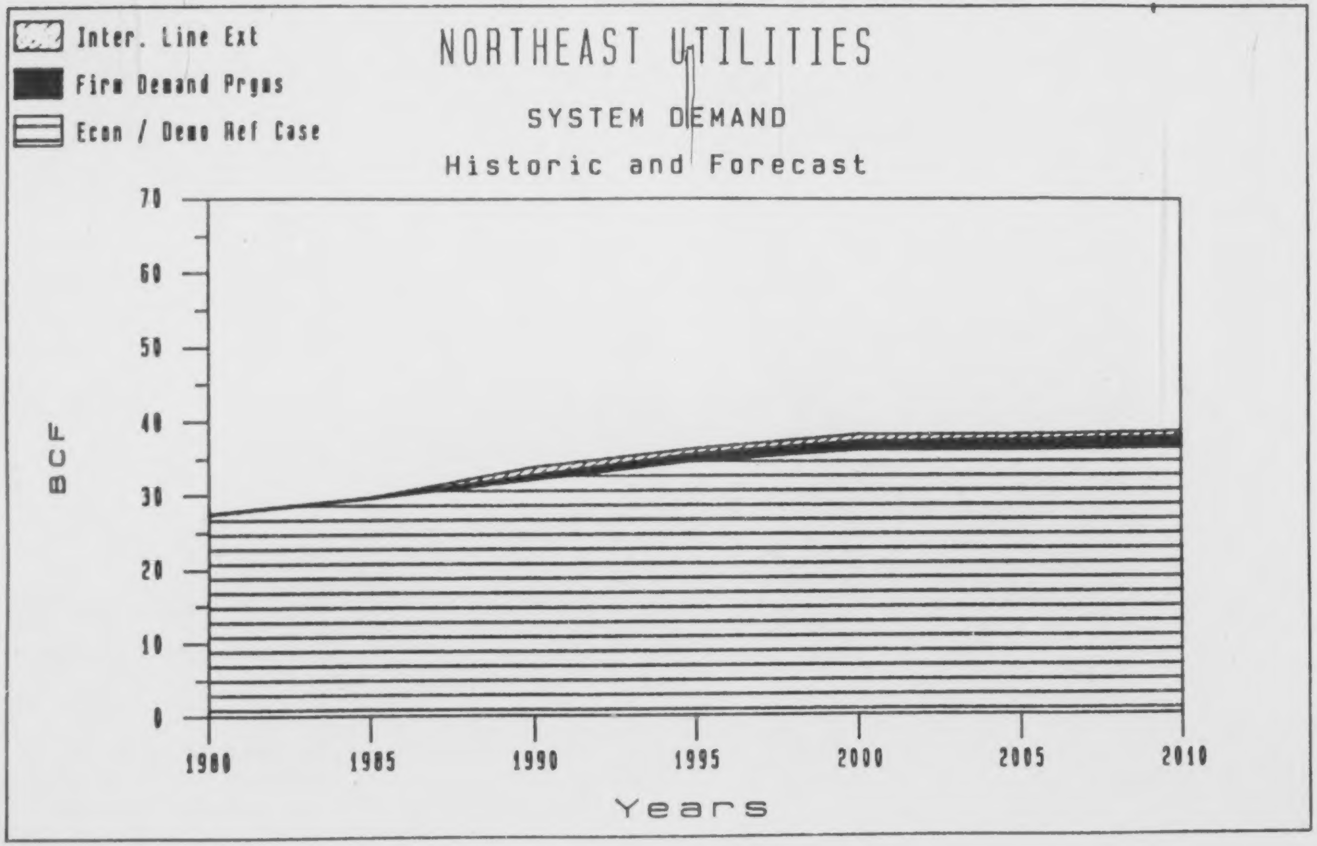
...the future demand of firm gas customers can be met most economically by contracting for additional pipeline gas rather than by adding propane capacity, the difference being on the order of 8 to 10 percent in the period 1995-2005. . .[p. 48]

Despite all the uncertainties, natural gas has a significant potential of becoming a swing fuel in the electric power generation market. . .[p. 61]

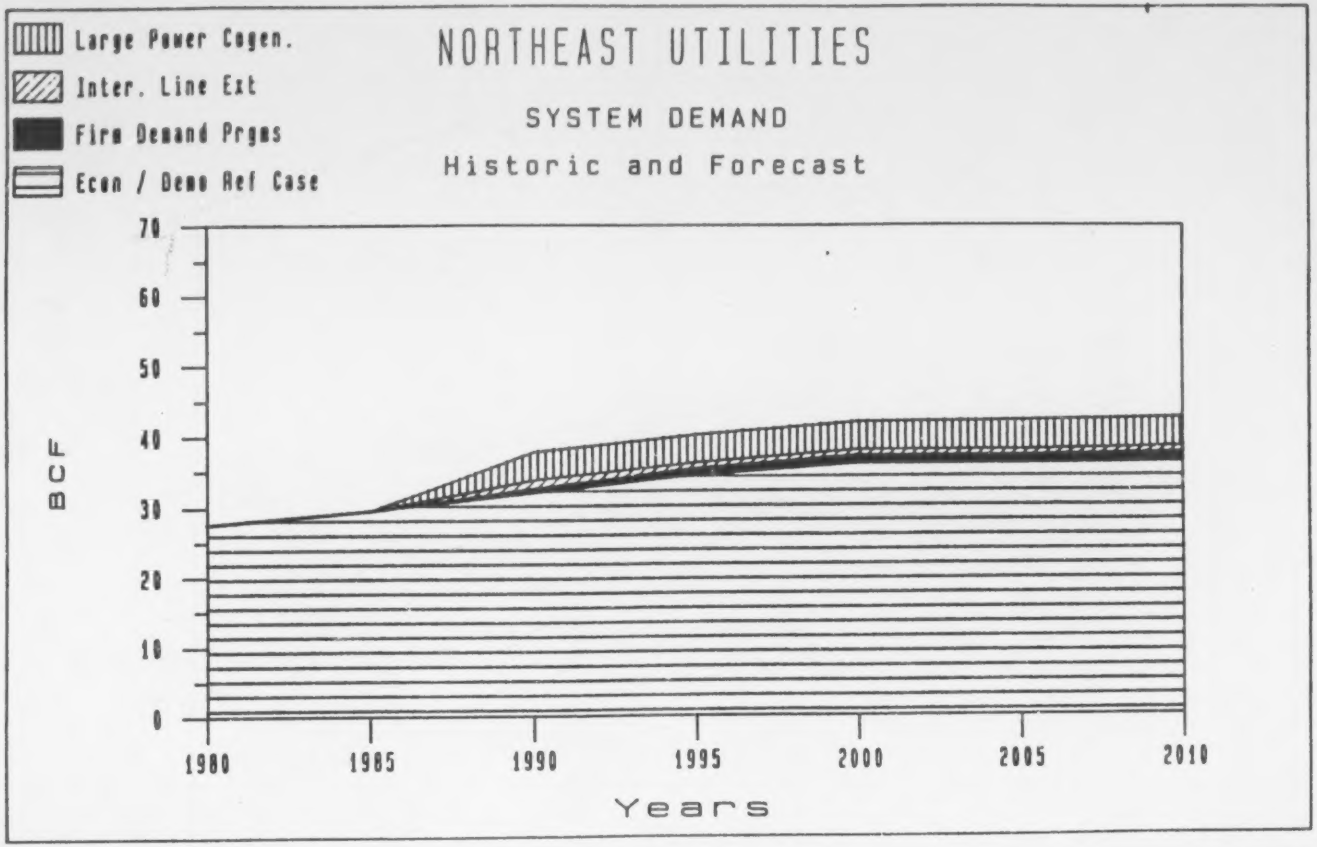
The national and international energy environment favor the increased penetration of natural gas into the historically lagging New England market. . .[p. 62]

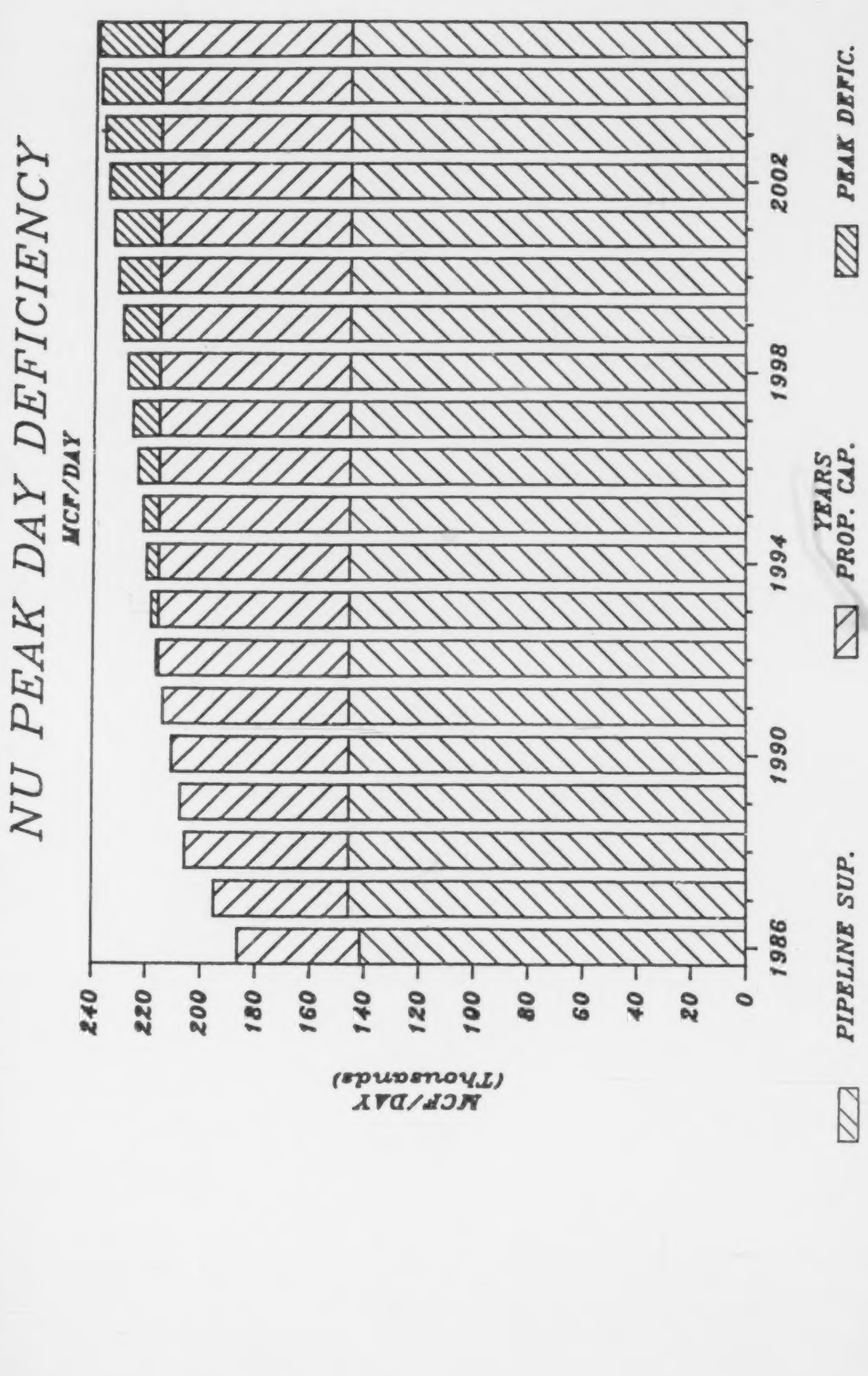
Whether the overall demand for gas grows from the current 28,000 MMcf to 32,600 MMcf a decade hence, as the "reference" demand forecast suggests, or whether it reaches 38-40,000 MMcf, reflecting the efforts of new demand programs and cogeneration requirements, or whether even higher levels will be required to meet electric generation needs, new long-term sources of supply will have to be secured in the near future for both reliability and economic benefits to the consumers. . .[p. 63]

III-2


Inter. Line Ext
Firm Demand Prgms
Econ / Demo Ref Case
NORTHEAST UTILITIES
SYSTEM DEMAND
Historic and Forecast
BCF
70
60
50
40
30
20
10
0
1980
1985
1990
1995
2000
2005
2010
Years

III-3


NORTHEAST UTILITIES
SYSTEM DEMAND
Historic and Forecast
Large Power Cogen.
Inter. Line Ext
Firm Demand Prgms
Econ / Demo Ref Case
BCF
70
60
50
40
30
20
10
0
1980
1985
1990
1995
2000
2005
2010
Years



NU PEAK DAY DEFICIENCY

MCF/DAY

Connecticut Energy, Economic and Environmental Benefits Study, Prepared for Iroquois Gas Transmission System by R. J. Rudden Associates, Inc., Wellesley, Massachusetts, November 1986

The Rudden report provides the results of a research project undertaken on behalf of the sponsors of the Iroquois Gas Transmission System. There were three objectives to the research project:

o To provide a long-term perspective on Connecticut energy markets.

o To demonstrate the benefits of increased availability of natural gas in fostering economic development.

o To outline the role of the Iroquois project in this marketplace.

The report stimulated a dialogue among Rudden, the Congressional Research Service and Northeast Utilities. Excerpts of this dialogue are contained in the four documents which follow the Rudden report.

CONNECTICUT ENERGY, ECONOMIC AND ENVIRONMENTAL BENEFITS STUDY, PREPARED FOR IROQUOIS GAS TRANSMISSION SYSTEM BY R. J. RUDDEN ASSOCIATES, INC.,WELLESLEY, MASSACHUSETTS

November 1986

EXCERPTS

State leaders and policymakers have recently expressed concern over whether future economic growth in Connecticut and New England as a whole may be unduly constrained by inadequate energy resources. Others have expressed the opinion that proposed energy supply projects, such as new electric generating facilities and the Iroquois pipeline are not needed and will only increase costs without providing any benefits to Connecticut. Still others in the State have voiced increasing concern over the environmental impacts of energy facility siting, waste disposal, and general quality of life issues.

This debate is taking place against a backdrop of robust, sustained economic growth in the State over the past decade, as measured by trends in employment, income, population, and housing. At the same time that this growth has taken place, Connecticut has diversified its fuel mix by becoming less dependent on foreign oil, and has made significant strides in using energy more efficiently. . .[p. 1-2]

Natural gas has played an important role in Connecticut's energy profile in the past decade, increasing its market share every year since 1978. This has occurred despite the fact that availability of gas to the State from interstate pipelines has been limited by capacity constraints on the pipeline facilities serving the region.

The proposed Iroquois Gas Transmission System provides an opportunity to substantially increase the delivery capabilities of gas pipelines serving Connecticut, as well as to gain access to Canada's vast gas supply resources. . .[p. 3]

The shift in the fuel mix has been as impressive as the decline in energy use. Since 1970, gas consumption has increased at a rate of 2 percent per year while total non-transportation primary energy consumption has decreased at an average rate of 0.8 percent per year. . .[p. 5]

Natural gas and electricity are clearly the consumer's preferred energy forms for the current mix of residential, commercial and industrial consumers. . .[p. 7]

In the past fifteen years, the (Connecticut) market share of gas in industrial energy markets has more than tripled from 8.3% to 26.3%, while oil's market share has dropped from 80.3% to 46.9%. . .[p. 8]

First, natural gas is clearly preferred as a fuel by commercial and industrial energy users. This is undoubtedly due to its historical price advantage versus fuel oil, its ease of use, and the fact that it is a zero-sulphur fuel capable of being burned without adverse air quality impacts. Second, there remains a substantial opportunity for gas to increase its residential market share by competing with oil and electricity for heating and other end-users such as cooking, water heating and clothes drying. . .[p. 9]

In the Northeast where demand for gas is growing, the adequacy of pipeline delivery capacity to meet existing and potential future demand is problematical. The substantial weather-sensitivity of gas loads requires that distributors in New England contract for delivery of winter season, supplemental, storage and peaking supplies in addition to year-round pipeline capacity. No firm excess capacity presently exists on either pipeline system serving Connecticut during periods of peak demand. The few additions to pipeline capacity that have occurred in the past few years have either been improvements only in the winter-season delivery capabilities of the pipeline, or have been small but expensive increments in capacity for one portion of the pipeline. . .[p. 12]

Increased Gas Availability and Use Can Enhance Both Intrafuel and Interfuel Competition with Other Gas Supplies and Competing Fuels, and Put Pressure on Prices in Existing Markets. . .[p. 19]

Increased transmission capacity should allow gas distributors and large users an increased opportunity to purchase lower cost spot market supplies directly from producers for transportation to Connecticut. There is little doubt that the constrained capacity of the existing pipeline systems has resulted in a reduced ability of New England users to take full advantage of favorable spot gas purchase opportunities that are available to other parts of the country.
An increased supply of gas and the resulting increased

throughput of the gas transmission and distribution system in Connecticut will serve to spread the fixed costs over larger volumes, thus reducing the average fixed costs on the system and reducing the cost of gas to consumers. . .[p. 21]

If we assume a constant ratio of 3,030 Btus/$ real GSP until the year 2000, and real annual economic growth of 2.7%, based on U.S. Department of Commerce Bureau of Economic Analysis projections, then economic growth in existing Connecticut markets (residential, commercial, industrial, electric utility) will result in a need for an additional 42 Bcf of gas supply by the year 2000 and 60 Bcf by the year 2005 if historical relationships continue. . .[p. 22]

Saturation of gas heat in Connecticut housing units which have gas service is also extremely low compared to U.S. average. It is estimated that 62% of the housing units which have gas service in Connecticut use gas for heating purposes, compared to 88% in the U.S. overall.
These figures (among others cited) indicate a large residential market potential for gas in Connecticut. In addition, the low penetration rate for gas in new residential units depicts a growing, potential problem in Connecticut. Since 1981, nearly 30% of all new housing units have installed electric heating, with 67.5% installing electric resistance heating and 32.5% heat pumps. This trend has exacerbated the electric capacity problem in the State and highlights a growing market inefficiency. . .[p. 23-24]

A recent forecast completed by the Connecticut OPM and reviewed by NEPOOL and in-state utilities projects that QF (cogeneration) capacity will reach a level of 435 MW by 1990 and 1,200 MW by the year 2000. The OPM estimates that 63 MW will be gas fired by 1990 and nearly 600 MW will be gas-fired by the year 2000. The majority of non-gas fired cogeneration is anticipated to be powered by refuse and coal. Should project economics or environmental problems negatively impact these projects, the potential for additional gas fired capacity will increase. . .[p. 26]

The market for gas air conditioning is in its early stages of development. The natural gas industry is actively pursuing research and development of this option. Since Connecticut is projected to become a summer electric peaking system, penetration of gas into the air conditioning market can serve to reduce peak electric growth and defer the need for new generating capacity. This option would be most applicable in commercial establishments and office buildings. It is important to note that the commercial sector is the fastest growing sector in terms of peak electrical needs, and that air conditioning is one of the applications contributing most to peak growth.

Gas air conditioning offers peak diversity benefits for both electricity and natural gas. An increased summer gas load through air conditioning would increase system load factors during the summer, improve the efficiency of the distribution system, and reduce system fixed costs. On the other hand, as gas substitutes for electricity in this market, electric peak load growth will be reduced during peak summer periods and therefore reduce the need for new electric generating capacity. . .[p. 31]

Proposals advanced by Connecticut's existing pipeline suppliers to purchase additional volumes of Canadian and other gas supplies for the pipelines' system supply will not provide Connecticut with additional pipeline capacity, a dedicated supply source for the State's incremental gas requirements, or additional competition in energy markets. Connecticut is only a small portion of the market served by the existing pipelines, and its interests and needs are dwarfed by those of larger users all along the pipeline from Texas to New England. This fact could become extremely important if supply shortages develop on these systems in the future. . .[p. 37]

AN EVALUATION OF THE RUDDEN REPORT,
CONGRESSIONAL RESEARCH SERVICE, LIBRARY OF CONGRESS

January 1987

EXCERPTS

To count on gas demand growing simply in response to increased economic activity may be overly optimistic. . .[p. 2]

And homeowners will have to want to convert to gas, something they have shown little interest in doing in your state. Right now, there is no reason for them to do so: oil is a lot cheaper. This might help explain why more residences in Connecticut than in the nation generally have gas supplied to the house but do not use it for space heating. . .[p. 2]

Viewed in this context, it is problematic to count on cogeneration for a substantial increment of natural gas demand. . .[p. 3]

There is no question that the future will see an increasing amount of dual fuel generating facilities. But the fuel choice will depend on relative prices of fuels, and the Rudden forecast assumes that oil will be more expensive in 2000 than the delivered price of gas. This is not currently the case, but the planning of 56 bcf of demand--equal to 2/3rds of present demand--may be as speculative as forecasting oil prices. . .[p. 4]

So the Rudden forecasts of gas demand for electric generation may be reasonable, but it will take a favorable oil-gas price comparison to make them an actuality. . .[p. 5]

The concern here is two-fold: consumers might have to pay a high demand charge even if they didn't take any gas, and gas that might be otherwise too expensive would be taken because the utility was already obligated to a high demand payment and this might be the least cost alternative. Were this to occur, domestic gas might be displaced even if it were cheaper. . .[p. 5]

REBUTTAL TO THE CONGRESSIONAL RESEARCH SERVICE REPORT, R. J. RUDDEN ASSOCIATES

EXCERPTS

CRS implies that natural gas demand growth in Connecticut relative to economic growth should follow the same pattern as the U.S. as a whole. . .[p. 2]

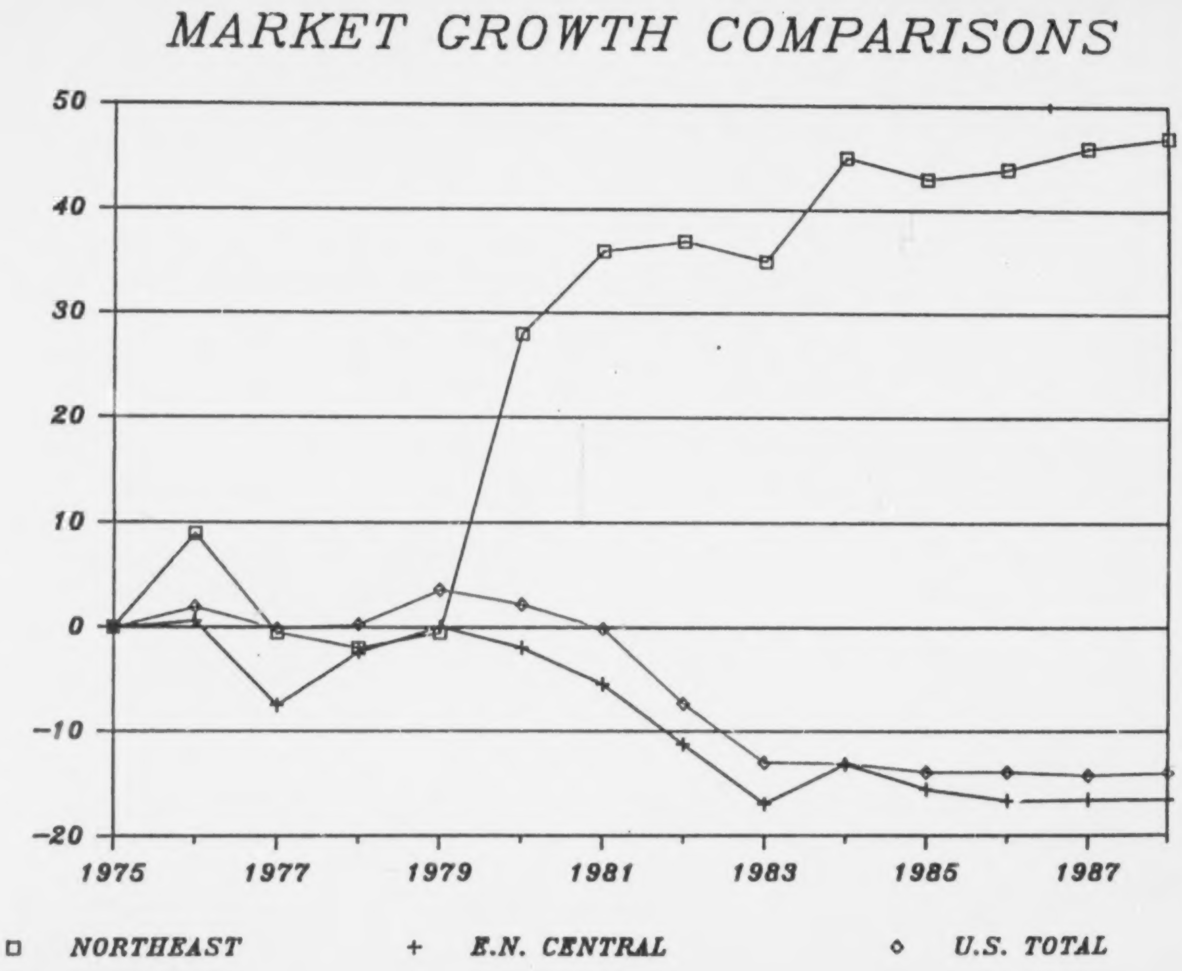
While Connecticut's natural gas consumption grew by an average of 2.0% per year between 1970-1984, gas consumption in the U.S. declined by an average of 1.2% per year over this same period. . .[p. 2]

The mix of economic activity in Connecticut differs from the U.S. Much of the decline in gas use in the U.S. is due to the loss of load in traditional, heavy manufacturing industries such as steel, etc. These energy intensive industries are not prevalent in Connecticut. . .[p.2]

First of all, approximately three-fourths of the State's population lives in towns and cities where gas service is available, although only one-third of the state's households actually have gas service. One of the primary reasons explaining this low saturation was the uncertainty over the availability of adequate gas supplies during the curtailments periods of the 1970's.
Secondly, according to the 1978 report of the New England Energy Congress, the existing distribution system in New England overall and in Connecticut has sufficient capacity to double gas sales. The main constraint inhibiting increased saturation is inadequate pipeline capacity.
Finally, since the late 1960's natural gas has experienced a competitive advantage in relation to distillate oil in the residential sector when the accurate comparison of gas use for heating, cooking and hot water is compared to the cost associated with a combination of oil and electricity or all-electric for those same uses. Natural gas utilities have not been able to aggressively market gas due to peak day pipeline capacity limitations and limited supply. We believe that in a competitive marketplace with adequate gas supplies, distribution companies will be able to aggressively compete for increased residential market share. . .[p. 3-4]

There is little doubt that utilities in Connecticut will be required to rely on cogeneration for electric generating capacity. If this cogeneration does not materialize, other projects which may be gas-fired, will be required in any case. Even assuming that only one-third of the facilities proposed are actually developed, the cogeneration market will require an additional 13 Bcf annually, or one-third of the total annual Iroquois volumes. . .[p. 4]

CRS indicates that many of the existing oil-fired plants in Connecticut can and do burn gas now.
This statement is inaccurate. Currently, only two units in Connecticut, Montville and New Haven Harbor have the capability of burning gas. If all units at these two stations are considered gas capable, this would still represent less than 30% of oil-fired capacity in the state. . .[p. 5]


MARKET GROWTH COMPARISONS
50
40
30
20
10
0
−10
−20
1975
1977
1979
1981
1983
1985
1987
□ NORTHEAST
+ E.N. CENTRAL
◇ U.S. TOTAL

AN ESTIMATE OF THE DEMAND FOR NATURAL GAS IN
CONNECTICUT,
Congressional Research Service
April 10, 1987
EXCERPTS

Connecticut is a small gas market that cannot be expected to absorb large increments of capacity. The upper range of the forecasts in this analysis indicates growth in the order of 2 or 3 bcf/year can be expected in the current energy market environment. No growth at all is also a real possibility...[p.2]

Conversion of one steam electric plant to use gas, construction of a combined cycle generating station, or a major shift to gas-fired cogeneration could absorb the whole increment of supply offered by the proposed Iroquois pipeline facility. There are, however, no firm plans for using gas as a primary fuel in any generating facility, and the state DPUC has put a hold on gas-fired cogeneration...[p.2]

As order 436--which is a relatively recent and far-reaching change in the regulatory environment--plays out, it may provide the benefits of a project like Iroquois without major new pipeline construction...[p.3]

One major caveat must be noted at this point. Forecasts made in this paper are based on current perceptions of the oil market and how prices are likely to be determined in the future. The basic premise is that crude oil prices are stable in the $18.00 per barrel area, and are likely to rise only slowly during the next 10 years...[p.4]

Residential space heating demand may be expected to decline by 1.4 percent annually because of improved replacement equipment. This amounts to about 1 trillion Btu's, and represents a drop in total residential demand of about 3 percent annually...[p.9]

The characterization made above is clearly based on current energy market conditions and current expectations of future energy market conditions. Oil prices are expected to remain at current levels for the near term and then rise at relatively low rates through the mid-1990's...[p.25]

RESPONSE TO CONGRESSIONAL RESEARCH SERVICE (APRIL 10, 1987) EVALUATION OF THE NEED FOR NATURAL GAS IN CONNECTICUT,
PHILIP T. ASHTON, SR. VP, NORTHEAST UTILITIES

April 10, 1987

PRINTED IN FULL

A memorandum from the Congressional Research Service (CRS) regarding the Iroquois Gas Transmission System's proposed natural gas pipeline is seriously flawed from several perspectives.

Primarily, it indicates a complete lack of understanding of the fact that the use of natural gas in Connecticut has been constrained by the supply available from the two pipeline companies presently serving the state. Lack of supply, more than any other single factor, has inhibited the use of natural gas in Connecticut to the point where its use is only half the national average.

In addition, the author has based his conclusions on data that is two years old and he has made no effort to contact Connecticut's gas distribution companies for updated information on anticipated load growth.

He also appears to have ignored the extensive testimony and cross-examination before the Connecticut Department of Public Utility Control (DPUC) in proceedings conducted in late 1986 and early 1987 on Connecticut's gas supply and demand. This testimony clearly indicates the need for additional gas supplies to meet demands by existing, to say nothing of, new customers and the use of gas for electric generation and cogeneration.

Even now, there are insufficient supplies of natural gas to meet customer demands during periods of peak use and supplemental forms of gas such as propane must be used, resulting in higher costs to customers. As loads grow, this shortfall will increase to the point where new facilities, either pipeline or propane, will be needed by the early 1990s.

On the subject of gas as a boiler fuel for electric generation, the author has not recognized that existing generating units in Connecticut can be quickly converted from oil to gas if long term volumes of gas are available.

In general, the memorandum does not contain factual material to support its contention that there is no need for the Iroquois project.

The Economic Impact of The Iroquois Pipeline on Connecticut, A Report submitted To The Energy Division of the Connecticut Office of Policy and Management by QED Research, Inc., Palo Alto, California, February 5, 1987

Commissioned by the Connecticut Office of Policy and Management, the QED report is the result of the examination of material related to the Iroquois project and an analysis of gas rate-making issues.

The Iroquois sponsors issued a response to the QED report. Excerpts of this document follow the report excerpts.

THE ECONOMIC IMPACT OF THE IROQUOIS PIPELINE ON CONNECTICUT,
QED RESEARCH, INC.

February 1987

EXCERPTS

Executive Summary

QED Research has conducted a document review of the material relevant to the proposed Iroquois Gas Transmission System. In addition we analyzed rate making issues for the State of Connecticut's Office of Policy and Management. Our findings can be summarized as:

- Connecticut utilities use oversimplified and in some cases incorrect methods for estimating the sensitivity of demand to price changes, and overall forecasting.
- The competing pipeline proposals to the Iroquois Gas Transmission System can provide additional gas to Connecticut. These projects require the expansion of the Tennessee or Algonquin pipeline systems to complete the transportation to Connecticut. Both companies have the physical capability to expand their systems.
- Canadian gas supplies contracted by Iroquois are adequate to provide gas to the pipeline in the specified quantities for at least fifteen years.
- Even if utility forecasts are taken at face value, it is unlikely that Connecticut customers would use all of the gas that Iroquois would provide for over a decade, unless Iroquois is used to replace some existing supplies. It is beyond the scope of this work to determine if such a policy of replacement would be beneficial to Connecticut. This is an important issue for additional study.
- In a worst case scenario, if none of Iroquois gas were needed, and rates at the current proposed prices were assumed, and existing contracts were renewed at prevailing prices, gas costs to consumers could rise by 18 to 23 percent.
- It is unlikely that the capacity utilization of the Iroquois pipeline will be as high as assumed in the FERC application, and so the rates are likely to be higher than those forecast in the application.
- Recent rulings by FERC will force Iroquois to restructure the financing and the rate structure of their proposal. The new financing and rate structures will mean that costs will be higher than estimated in the present Iroquois FERC application.

Conclusions and Recommendations

At this time, there is not enough information available to reach a definitive recommendation with respect to the need for construction of the IGTS. We do believe, however, that the proposed rate structure imposes an excessive level of risk on the consumer. We further question the ability of the participants to finance the project as proposed under a more market-oriented pricing regime.

We also note that it is unlikely that Connecticut jurisdictional customers will fully utilize the firm contracted demand for which they will be obligated under the proposed contracts. This raises the possibility that they will be paying for capacity which will be sold a second time to other end-users, allowing the double recovery of revenues. One method of addressing this problem is to require that the contracts between the utilities and IGTS specifically allow for assignment of contract capacity. Such an arrangement would be analogous to a lay-off or unit power sale in the electric utility industry.

Finally, we believe that rates forecasts of various sources of supplies should be performed. This would allow FERC to perform a direct cost benefit analysis of the proposed pipeline. Environmental costs could, of course, be added to the costs of the IGTS to account for the negative externalities associated with its construction and operation.

RESPONSE TO THE QED REPORT, IROQUOIS GAS TRANSMISSION SYSTEM

March 1987

EXCERPTS

This section purports to analyze eight "Demand Forecasts for the Iroquois Applicants." In fact, what it analyzes is a scattered and sparse selection of documents and testimony, some clearly not related to the Iroquois project and most of which are not demand forecasts at all. While there is no explanation as to why or how QED selected the eight studies as a focus of their analysis, the implication of the Report is that Iroquois is relying heavily upon these materials to support its proposal. That is simply untrue. What is most notable about Section I is not what it does review, but what it does not. For example, the Report completely ignores the date and the methodologies presented by the three Connecticut Iroquois participants in the January 6 and 28, and February 6, 1987 Connecticut Department of Public Utility Control (DPUC) hearings which were called specifically to examine the forecasting methods of those companies. The analyses and forecasts included in those presentations, both written and testimonial, reflect not only sound gas utility forecasting methods, but current and historical data generated by operating utilities in the specific franchise territories served by them. Indeed, these presentations are among the most comprehensive ever made to the DPUC. There is no question that the volumes of data filed with the DPUC as well as the testimony of several witnesses were available to QED and to the Connecticut officials who directed the QED effort. Yet the Report offers no explanation as to why that source of information is totally ignored. . .[p. 2-3]

In addition, QED does not accurately portray the market it is evaluating. Table 1-1 (Report at p. 11; referenced at p. 10) depicts Southern Connecticut Gas Company's (Southern Connecticut Gas') rates in comparison to competitive oil prices in national average data. The appropriate comparison, of course, is with oil prices for the markets in Connecticut actually served by Southern Connecticut Gas. That comparison, as one would expect, is substantially more favorable to natural gas. . .[p. 4]

QED concludes Section I with a menu of criteria which must be met for "adequate forecasts." Had QED evaluated the detailed forecasts presented to the DPUC in January and February, it would have discovered that its criteria had been met. . .[p. 5]

What is most notable about the QED analysis is that it proceeds from studies and models developed during the "oil shock" years when there were dramatic and sudden shifts in the absolute and relative prices of energy and regulatory restraints on both oil and gas prices which directly impacted demand responses. While such an environment makes for interesting studies, it is hardly the environment we are in now or likely to be in during the foreseeable future. . .[p. 6]

The sole support cited by QED for its claim that Connecticut companies may not fully utilize their Iroquois capacity is two factually erroneous, highly misleading tables for a single Connecticut company, Southern Connecticut Gas. QED relies exclusively on Tables 5-5 and 5-6 to support its claim of under-utilization. Table 5-5 ostensibly presents a projection of Southern Connecticut Gas' sendout for 1986-87. What QED fails to note is that the projections are limited to the sendout required to meet firm requirements. No interruptible requirements are reflected in Table 5-5. . .[p. 15-16]

QED makes no attempt to explain how this 68% load factor based on firm sales for one company in 1986-87 supports its assumption that no gas would be transported on Iroquois by three companies with potentially substantial interruptible markets in 1988-89. Obviously, QED's own tables do not support its assumption. Thus, even if one were to accept QED's data as valid, its worst case analysis is without any foundation. . .[p. 16]

QED has misstated Southern Connecticut Gas' Iroquois reservation. Table 5-6 reports that Southern Connecticut Gas' maximum monthly Iroquois volume is 1,500,000 MMBtu and that its annual total is 18,250,000 MMBtu. In fact, Southern Connecticut Gas' maximum monthly Iroquois volume is 1,050,000 MMBtu (assuming a 30 day-month) and its annual total is 12,775,000 MMBtu. Correction of this factual error alone would reduce the 32% figure shown in Table 5-6 to 2.8%. In other words, Southern Connecticut Gas could transport gas on Iroquois at 97.2% load factor in 1986-87, assuming the pipeline were available, without making any minimum bill payments or selling any interruptible gas. . .[p. 16-17]

For example, QED "estimate[s] that Connecticut utilities will not be able to utilize more than thirty to fifty percent of their contract capacity in the early years of operation." (Report at p. 59). The sole explanation of the basis for this remarkable--and untenable--conclusion is that QED "use[d] the forecasts of the utilities." *Id.* How did QED "use" the forecasts? What assumptions did QED make? We are never told. The only individual company forecast set forth in the Report is the misleading and inaccurate Tables 5-5 and 5-6 for Southern Connecticut Gas, which are discussed above. . .[p. 27]

In summary, the financial and rate sections of the QED Report lack integrity and accuracy. The Report's misinformation and manipulation of information does not create a thorough evaluation of the Iroquois project as a whole or even with relation to the State of Connecticut. It is obvious that its analysis did not lead it to its conclusions, but that politically motivated conclusions led it to its analysis. To anyone with knowledge of the industry, this is easily recognizable. . .[p. 30]

An Evaluation of Tennessee Gas Pipeline's Alternative to the Iroquois Gas Transmission System Pipeline Proposal, by Iroquois Gas Transmission System, February 11, 1987

In June of 1986, the Tennessee Gas Pipeline Company provided the Iroquois sponsors with a six-page document describing an alternate to the Iroquois project. Despite repeated requests for more information from Congresspersons, the Federal Energy Regulatory Commission and the Iroquois sponsors, no further information has been provided. In January, 1987 Tennessee stated to FERC that "Iroquois customers have shown little or no interest in the (Tennessee) proposal to date".

In February 1987 Iroquois, in a letter to FERC, replied to Tennessee's statement. Attached are excerpts of this letter.

AN EVALUATION OF TENNESSEE GAS PIPELINE'S ALTERNATIVE TO THE IROQUOIS GAS TRANSMISSION SYSTEM PIPELINE PROPOSAL, BY IROQUOIS GAS TRANSMISSION SYSTEM

February 11, 1987

EXCERPTS

The proposed Tennessee charges were substantially higher than those proposed for Iroquois...[p. 1-2]

Tennessee's proposal involved a landfall at Rye, New York and a Long Island Sound crossing easterly to Northport on Long Island...there is no acceptable landfall in the Rye to Stamford zone...due to population density and...(a Rye to Northport crossing of the Sound) would be prohibitively costly...[p.2]

Tennessee was also advised that any "alternative" system designed by it should have the capability to effect deliveries of the same volumes to the same delivery points specified for the Iroquois customers in the Iroquois application, which condition Tennessee specifically acknowledged...No such revised proposal was ever forthcoming...[p.2]

A Gas Transmission Right-of-Way

This photo taken in November 1986 of a major gas transmission right-of-way in Shelton, Connecticut demonstrates the minimal environmental impact of such an installation.

THE PIPELINE ROUTE Lakeville Journal 7/31/86
"...it would ill behoove us in this area to try to block the application before the Federal Energy Regulatory Commission."

DIVERSIFYING ENERGY SUPPLY Hartford Courant 8/5/86
"There is little to be said against the pipeline."

DON'T FIGHT PIPELINE BLINDLY Waterbury Republican 8/6/86

PIPELINE STUDY VITAL STEP Waterbury Republican 9/9/86

RECONSIDER PIPELINE ROUTE Waterbury Republican 11/1/86
"The implications of emotionally-charged protesters that serve the public good are alarming, which makes devising a rational approach to such endeavors all the more important."

CONSIDER PLUSES OF GAS LINE Waterbury Republican 1/4/87
"An increased supply of natural gas in Connecticut could help many homeowners and industries pay lower bills for heating and other purposes for years to come."

DON'T DELAY GAS DECISIONS Waterbury Republican 1/25/87
"Imposing an arbitrary time delay isn't fair whether it is mandated for the Iroquois system or any other gas pipeline."

PIPE OR PIPE DREAM Lakeville Journal 1/29/87
"The challenge...is to keep minds open to the distinct possibility that additional supplies may be needed in Connecticut."

PIPELINE ISN'T JUST FOR TODAY Waterbury Republican 2/15/87
"If industries and even homes can be converted from oil to gas for energy, it will ease America's dependence on OPEC nations."

IROQUOIS The Day (New London) 2/15/87
"The project is necessary, consistent with state energy policy and should be allowed to be built."

IROQUOIS ... WE NEED YOU Citizen News (New Fairfield) 2/18/87

PIPELINE HEARING WELCOME Waterbury Republican 2/23/87

WILL WE NEED THE GAS A PIPELINE MIGHT BRING?
Lakeville Journal 2/26/87
"I hope we do not get so caught up in the lynch mob atmosphere that we refuse to see what we may be doing to ourselves."

A REASONED LOOK AT IROQUOIS Hartford Courant 3/2/87

PIPELINE The proof's in the mail The Day (New London) 2/25

IROQUOIS PIPELINE: the time to act is now

Southern Connecticut Business Journal 3/9
"The Iroquois pipeline isn't the answer to all our problems, but it is one simple and cheap step to energy common sense."

WORTH PURSUING Poughkeepsie (N.Y.) Journal 3/29/87
"Iroquois has a lot of proving to do. But for now, its proposed gas pipeline is an idea worth pursuing."

PIPELINE GETTING 'EXPENSIVE' Waterbury Republican 4/14
"Northeast Utilities and others should make clear the see a need for this natural gas supply--and that it is politicians who are making delivery of it too costly."

IROQUOIS PIPELINE: YES Southern Ct. Business Journal 4/20
"In what has become a race against time for the Iroquois Gas Transmission System, the issue of building the pipeline is coming to a head. The time to act is now--in favor of the pipeline."

O'NEILL, LIEBERMAN AT ODDS Waterbury Republican 4/27
"If natural gas is important to Connecticut, let the governor explain that to Lieberman. He might then recognize the antagonistic policy he is following to block the Iroquois pipeline is detrimental to Connecticut."

PIPELINE SENSE Lakeville Journal 5/21
"This newspaper happens to believe that it makes sense to seek additional sources of clean energy for future needs. ...A stable assured supply of natural gas from Canada would appear to meet that requirement."

IROQUOIS The Day (New London) 5/26
Declare victory and go home
"Both this region and the entire state will benefit from a bountiful new supply of natural gas. The air will be cleaner and we will be less vulnerable to another oil crisis."

PIPELINE AIDS COGENERATION Waterbury Republican 7/1
"Those who fight the Iroquois line refuse to look at the long-range picture, one aspect of which has to be the reduction of the use of imported oil in the Northeast."

DPUC DARES TO BE DIFFERENT Waterbury Republican 7/3
"The DPUC studied the pipeline question and its conclusions contradict the conventional anti-pipeline wisdom. It reports that demand for natural gas is growing in Connecticut but is constrained because of limited availability.
"In other words, people want natural gas but they can't get it."

REMARKS OF VICTOR H. FRAUENHOFER, PRESIDENT AND CHIEF EXECUTIVE OFFICER

CONNECTICUT NATURAL GAS CORPORATION

FOR DELIVERY AT SENATE ENERGY COMMITTEE HEARING

MONDAY, JULY 20, 1987, NEWTOWN, CT

My name is Victor Frauenhofer and I am President and Chief Executive Officer of Connecticut Natural Gas Corporation. Thank you for this opportunity to present testimony today on why CNG believes the Iroquois Pipeline is necessary to meet the future needs of CNG and its customers.

Connecticut Natural Gas currently serves over 132,000 customers in 21 communities in the Greater Hartford/New Britain Area and Greenwich. CNG's customer base has increased each year since 1972 and is projected to grow steadily at a two to three percent rate over the next ten years. CNG is a four percent equity partner in the Iroquois Project and has reserved 50 million cubic feet of natural gas a day from the pipeline.

CNG is fortunate to provide service in a thriving segment of our state. The Iroquois Pipeline will provide additional energy to meet the needs of residential, commercial and industrial markets in the capital region and Greenwich.

To meet this growth, additional supplies of cost competitive natural gas are needed. In CNG's service area during 1986, the number of newly constructed dwelling units connected to CNG gas lines were up 19 percent over 1985. In addition, despite the keen price competition between natural gas and oil, the number of oil-to-gas heating conversions of single and multi-family homes was up 11 percent. These statistics are clear evidence of the growth being experienced and the reasons why CNG believes the Iroquois System is needed to meet future demand.

There has been considerable debate about the need for the pipeline. Let me assure you that CNG decided to join with the other Iroquois partners in the building of a new pipeline after many years of repeated attempts by our company and others to secure additional supplies for our region from the two pipelines which currently serve the northeast. Some small amounts of natural gas have been made available to our company through the current pipeline systems, but not enough to meet the long-term needs of our present and future customers.

Speaking on behalf of all three companies here today, let me take a few minutes to talk about the process which has taken place since the Iroquois Project was announced. As Bob Reid has indicated, many regulatory bodies at the State, Federal and Canadian Government levels are reviewing the Iroquois proposal. The key issues of need and environmental impact are important components of each agency's process. We believe that elected officials, the general public and all interested parties have numerous opportunities to examine and comment on every aspect of our pipeline proposal. As partners, we have encouraged such comments.

At the federal level, The Federal Energy Regulatory Commission, as the lead agency, is charged with the preparation of an Environmental Impact Statement under the terms of The National Environmental Protection Act. In October of last year, the Iroquois Project filed an extensive Environmental Report, as part of this process. A draft Environmental Impact Statement is expected from FERC. A full public review process will follow the release of the E.I.S.

In December of 1986, Iroquois filed for an environmental permit in New York under the Article 7 procedures, where need is a primary issue. Evidenciary hearings began in New York in early June and are continuing.

Our Connecticut companies filed extensive documentation with the Connecticut Department of Public Utility Control as part of a docket which focused on our companies' forecasts of supply and demand. A draft decision has been issued on that docket with a final decision due out shortly.

In addition, The Canadian National Energy Board has approved Iroquois' applications to export the gas into this country for the Iroquois System. Their decision was based on the substantial market for the gas demonstrated by the Iroquois participants during evidenciary hearings in Canada.

Despite all of these reviews, it was clear to the Iroquois participants that questions of the need for the pipeline remained. In May, the pipeline participants proposed that The Federal Economic Regulatory Administration and FERC conduct hearings in Connecticut. ERA's hearings would focus on the need for Canadian gas in connection with their review of import authorizations. The FERC would examine the need for the Iroquois Pipeline as part of its comprehensive environmental review. While no hearings have been scheduled by either agency to date, we continue to believe that these hearings will provide answers to the key questions surrounding the Iroquois proposal.

The FERC has not taken action to date on Iroquois' application for an Expedited Optional Certificate. While the Commission dismissed many other projects which had been proposed to bring additional natural gas to the Northeast, the Commissioners did not act on our application.

In conclusion, let me reiterate that CNG believes in the need for the Iroquois Pipeline. In a state which continues to grow steadily, we need additional and diversified energy sources to meet our future needs. We need energy at prices that won't depress economic development and we need a means to deliver it. Iroquois provides all three.

With oil prices continuing to rise, the Iroquois Pipeline offers an alternative to oil and holds the promise of giving our region a chance to control its own energy destiny.

That concludes my remarks.

First Selectman
Jack Rosenthal

Edmond Town Hall
Newtown, Connecticut 06470
(203) 426-8131

TOWN OF NEWTOWN

July 17, 1987

The Honorable Lowell Weicker, Jr.
U.S. Senate Energy Committee

Re: Proposed Iroquois Pipeline

Dear Senator Weicker:

I oppose bringing the pipeline through Connecticut, and particularly Newtown, for the following reasons:

1. The need for a pipeline has not been established according to a report submitted to Congressman John Rowland by the Congressional Research Service.
2. An Environmental Impact Study has not been made to determine the effects on the environment and the ecology.
3. The aquifier that supplies potable water to most of the homes in Newtown would be in the path of the route of the pipeline. A break in the line could do irreparable damage to the water.
4. There would be adverse financial and emotional effects on the owners of property that would have to be taken because the property is in the path of the pipeline.

Very truly yours,

Jack Rosenthal

Jack Rosenthal
First Selectman

TOWN OF SOUTHBURY
OFFICE OF THE FIRST SELECTMAN
501 Main Street South
Southbury, Connecticut 06488
(203) 264-0606 - ext. 200

July 16, 1987

The Honorable Lowell P. Weicker, Jr.
U.S. Senate Energy Committee
100 Grand Avenue
Waterbury, Connecticut 06702

Dear Senator Weicker:

Through the courtesy of Mike Kenney, I received word of your willingness to accept written statements for inclusion in the record of the Energy Committee hearing to be held by you on Monday, July 20, 1987. Please accept this letter for that purpose.

As you probably know, the Southbury Board of Selectmen, after thoughtful consideration, has, on my advice, deferred the taking of an official position on the proposed Iroquois pipeline. This decision was made to conform to the rules of the Federal Energy Regulatory Commission, under which it will consider objections to the pipeline after a Draft Environmental Impact Study has been developed, which will first require the proposed route to be defined by the application in much more detail than it has yet done. Only then can we assess the impact of the pipeline on Southbury. We have repeatedly requested assurances from FERC that we will have full opportunity to be heard at the proper time. We have also informed FERC that this Town intends to take strong objection to the pipeline route to the extent that it would inflict any significant environmental damage on Southbury. We understand that the Commission's own rules will require it to honor that request. Along with other Selectmen, I believe that although we may all dislike the idea of a pipeline in town, the taking of a position against it by public officials is a heavy responsibility, which virtually assures our constituency that we have the facts in hand to make out a case with a high probability of success. If we do not have that factual underpinning, our opposition would be seen by the decision-making authority as mindless posturing, and would damage our credibility.

It is, however, not premature to state our objections on procedural matters. We have done so previously, and welcome the opportunity to repeat them here. At the very outset of the Iroquois proceedings Southbury made a timely motion to intervene--one of three towns to do so. In our motion papers, and again in the hearing before Chairman Hesse at Torrington, we objected to the so-called "fast track" procedure and demanded that evidentiary hearings be held on all phases of the project. The "fast track" question, I understand, is presently under very active consideration by the Commission, and I hope that you will help us to persuade that agency to avoid even the appearance of "railroading" the project through.

It would also be helpful if the Commission would state expressly that arguments on the merits will be welcomed after the DEIS is released and before any decision is made. That would allay the anxiety of many of our residents who are of course not familiar with the rules of practice and procedure of Federal agencies.

On behalf of the Board of Selectmen and the residents of Southbury, I thank you for the opportunity to re-state our views.

Very truly yours,

Roger R. Clisham

Roger R. Clisham

RRC:rbh

COMMENTS OF MAYOR MICHAEL E. PACOWTA
REGARDING PIPELINE INSTALLATION PROPOSAL
OF IROQUOIS GAS TRANSMISSION SYSTEM

PRESENTED AT HEARING LOCATED AT
NEWTOWN HIGH SCHOOL, NEWTOWN, CT.
ON JULY 20, 1987.

The proposed pipeline route would cut through the City of Shelton scarring unspoiled farmland, forest and parkland. The proposed line would run, roughly, in a straight line without any ostensible attempt on the part of Iroquois to route around environmentally sensitive areas. Consequently, Shelton's valuable wetland systems, forests, farmlands, park lands, wildlife habitats, residential areas, and business properties would be subject to and impacted by an unnecessary and irreparable upheaval if the proposed pipeline is approved by the F.E. Commission.

Serious questions exist about the need for increased gas on the scale involved in this project, and about whether or not this is the most cost effective way to meet such needs as may develop in the region for greater supplies of natural gas. There are several proposals to expand current pipeline systems to increase natural gas transportation capacity to the Northeast United States pending before the Federal Energy Regulatory Commission which are less costly and less environmentally damaging than the Iroquois proposal. Unlike Iroquois, these proposals would carry less expensive domestic gas and would extend existing pipeline systems.

The Federal government's Energy Regulation policy should be a policy governed by checks and balances - in an effort to check the State's legitimate energy needs and to balance those needs against the State's responsibility to protect the environment for future generations. A constitutional balancing test would require that the least harmful pipeline route for the environment and for the property owners in the City of Shelton and the State of Connecticut.

As the Mayor of the City of Shelton, I am in full agreement with, and support the position of my constituency. The petitions, in opposition to the pipeline, submitted to the Federal Regulatory Commission on October 28, 1986 reflect the animosity of the residents of Shelton toward the internment of this gas line. Serious consideration of potential alternatives and existent rights of way must be taken since there is no better way to mitigate environmental damage than to utilize land already set aside for transportation purposes.

Ultimately, it defies logic, reason, and common sense to build a pipeline only to discover later on that it was never needed to begin with.

The Iroquois Gas Transmission System does not give farmers any indication regarding the acreage they will lose during construction. Further, the long term impact with the amount of soil erosion and subsequent sedimentation is not estimated. Many questions arise - ie. what uses can a farmer put this land to? What limits are there on usage? What does the landlord need permission to use his/her land for? One great impact impinging on the farmer's rights will be that the right-of-way will be an avenue for crop destruction by vandals and recreation vehicles such as dirt bikes, terrain vehicles and four wheel drive trucks.

There is little doubt that the interring of the pipeline through Shelton farmland will destroy woodlands and inevitably kill those animals that inhabit these areas. Common knowledge dictates that birds and wild animals cannot be driven from their natural habitats and then expect them to return to live as they did prior to the invasion. Further, since most of Western Connecticut is a rock formation and a great deal of blasting will have to be done, wells and homes will be destroyed and subsequently, farmland will be rapidly depreciated in value.

The consensus among farmers and property owners is that the pipeline should follow existant rights of way along railroads or highways. In December 1985 in a neighboring town a gas explosion occurred which took lives and injured many. Our cities simply do not have the fire equipment required to take care of these types of explosions and fire companies are not trained to respond to gas explosions. The expense is overwhelming since one truck ranges from $200,000 - $400,000.

Large numbes of streams and rivers, including the Housatonic, which is crossed no less than three times and lakes are in the path of the pipeline. The Department of Environmental Protection is concerned with the crossing stirring up cancer causing PCB's. A PCB is a poly chlorinated bi-phenal which means that there are two cancer causing groups on one molecule. Construction across the bed of the Housatonic is likely to disturb PCB's now held in the bottom sediments of the river and have been a recognized problem for years. Now, it is possible for PCB's to get into the drinking water. Thus, the probability of significant alternation to this system is enormous.

The proposed route impacts Shelton wetlands at a minimum of 25 locations on 21 individual wetland units. This is the highest number of any community along the entire route including New York. Seven of the affected wetlands are also significant enough to be classified for FEDERAL regulation.

The proposed route traverses 11,050 lineal feet of wetlands. The highest amount of any community7 along the entire route including New York. Several of the crossings are classified as "border", which essentially indicates that a particular traverse may cross only a portion of a wetland, rather than completely through it. Regardless, the 11,050 lineal feet of wetland traverses approximately out to an area of 25.4 acres. That amount of wetland distrubance is roughly equivalent to 4 or 5 years of processing appplications from conventional proposals.

The series of traverses would involve 6 or 7 wetland systems. Systems being those areas of larger size and containing a variety of wetland types. As the amount of habitat diversity and size increase, so does the system's relative values and functions. Traverses, fills, and excavations should be avoided in places where an entire wetland system is involved.

Note that the proposal mentions that Shelton would have at least one satellite warehouse location. The location of such to be determined by the contractor. The warehousing of the tremendous quantities of piping, machines and support equipment may in itself create undesirable adverse impacts depending on the sensitivity and location of the site. Shelton is one of two communities in the State where the warehousing will occur.

Another drawback of the proposed route appears to disregard several existing open space areas of Shelton. Additionally, the route proposes impacts to wetlands and watercourses where local agencies such as the Shelton Inland Wetlands Commission and the Planning and

Zoning are trying to establish new open space designations. At a time when a local administration is trying to develop and protect precious resource areas, massive projects such as this should explore the possible alternatives with community personnel to minimize the environmental impacts.

In summary, the IGTS proposed route, as well as the Southeast Alternative #7 and the Shelton Alternative #4, will create significant and possible irreversible adverse impacts. It appears the impacts to Shelton's wetlands and watercourses is disproportionate with other communities along the route. The reason behind the conclusion is based upon evaluating the average miles per town along both the mainline and Farmington lateral. The average along the mainline is .42 miles/town of wetlands traversed. Along the lateral, the figure is .61 mile/town. In Shelton, the figure is 2.06 miles.

Among many residents there is both a commitment and a determination not to permit the proposed Iroquois Pipeline from crossing the Housatonic River into Shelton for a variety of reason. Upriver, PCB concentration levels have caused concern, for example, Falls River Dam tested at 10 ppm .... and the General Electric Plant at Woods Pond Dam found 40 - 60 ppm of PCB's. It was noted that the finer the sediment the higher level of PCB. As samples were taken closer to the dams the silt accumulated and so did PCB concentration. At Stevenson's Dam 2-4 ppm were recorded in 1978. (Dr. Sawhney's Report). A feeling seems to dominate within the general public that if a pipe were laid in the sediment across the river the carcinogenic molecules could lift and be carried downstream toward the Housatonic well-fields and recreational areas.

Because the chemicals are known to pass up the food chain and because they are fat-soluble, they are capable of bioaccumulation in living tissue.

It is well documented that biomagnification properties are evidenced in living tissue. Fish that migrate through, spawn, or live in waters contaminated with PCB's quickly absorb the chemical. It has been estimated by the EPA that fish can accumulate as much as 9 million times the amount of PCB's in the water. (Regenstein, p. 298). Simply stated, at each step in the food chain, PCB's can be concentrated from 10 to 100 times the concentration in the previous step. At the top of the chain, the concentration can be 10 million times that of the surrounding water.

In retrospect, many are concerned about the potential ramifications of the proposed pipeline. People feel that PCB molecules should be left quiet in river sediment --- not to be disturbed.

In the future we will pay the price. So now we should ask questions, debate, and stand up for our rights as human beings. As chemical wastes increase in response to a consumer society, we should be aware of where they are going and at whose expense. The by-products of our new age, those poisons which are dumped into our soils and water have cumulative effects. These effects will not be immediately noticeable. Years will pass while the great sponge of air, earth and water absorbs what it can. Then the limits past, the poisons will find their way into our lives. Let's ask questions and post solutions now. Perhaps we will utlimtely help ourselves.

I respectfully request that the Federal Energy Regulatory Commission be sensitized not only to the invasive disruption of Shelton's natural resources, but to the deep impact and assault upon it's quality of life which will follow the entrenchment of the proposed Iroquois pipeline. The comments delineated herein regarding the scope of the Commission Staff's Environmental statement reflect the City of Shelton's steadfast position that the effects of the proposed Iroquois pipeline would be deleterious to its health, and that Iroquois has sorely exaggerated the potential gas market in Shelton and the State of Connecticut.

Beyond the unestablished need for the Iroquois line is the emotional trauma and anxiety which has been felt by Shelton's residents as a result of the "threat" of the proposed pipeline intrusion. The people of the City of Shelton will not forget the adverse affects of the Iroquois pipeline procedure for many years to come.

① of ④

State of Connecticut
HOUSE OF REPRESENTATIVES
STATE CAPITOL
HARTFORD, CONN. 06106

REPRESENTATIVE SEAN C. BUTTERLY
SIXTY-EIGHTH DISTRICT

P.O. BOX 714 59 LITCHFIELD ROAD
WATERTOWN, CONNECTICUT 06795
TELEPHONE
CAPITOL: 240-8585
TOLL FREE: 1-800-842-8267

MEMBER
EDUCATION COMMITTEE
GENERAL LAW COMMITTEE

The Honorable Lowell P. Weicker Jr.
U.S. Senator
member, Senate Energy Committee
U.S. Senate

re: Iroquois natural gas pipeline

Dear Senator Weicker:

As the state representative of Woodbury and most of Watertown, I would like to once again express my opposition to the proposed Iroquois natural gas pipeline.

I renew this opposition even though the new announced "primary route" identified by the gas consortium ostensibly misses most of my district.

We who have opposed the

② of ④

pipeline have consistently rejected a "not in my back yard" approach to this proposal.

In fact, Rep. Herskowitz, (R-Southbury) Rep. Maddox (R) Bethlehem and several other legislators spearheaded a resolution against the Iroquois pipeline in the Connecticut General Assembly which memorialized the General Assembly's opposition to Iroquois.

In this effort we sought and received support from many legislators in the southern region of the state, including New Town's Mae Schmidle and Stratford's Bob Frankel, the Democratic Majority leader.

All studies of this proposal, except the DPUC report, question the need of this pipeline. Bipartisan findings along these lines include studies by Congressmen Johnson and Rowland, as well as the QED study commissioned ③ of ④ by Governor O'Neill.

I know that you will hear many valid technical arguments against this pipeline today expressed by such groups as the Northern Valley Environmental Commission and the Housatonic Valley association. The environmental considerations are enormous, and by far outweigh the scant evidence of need displayed to date.

In conclusion, Senator Weicker & members of the panel, I wish to remind the Senator of his comments at the F.E.R.C. hearing in Torrington last October when he referred to a helicopter ride over the proposed pipeline path. Referring to the beautiful landscape to be scarred by this pipeline, you stated: "Chairman Hesse, Connecticut Rests its case." As an attorney,

I could not think of a better ④ of ⑤
Closing argument.

I hope your panel and D.E.R.C. will find against this proposal anywhere in our state, and I offer any assistance needed by the federal officials that we in the General assembly of Connecticut may extend.

Thank you for your consideration of these comments.

Sincerely Yours

Dean C Butterly
68th District Rep.

UNITES STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Iroquois Gas Transmission System - Docket No. CP86-523-000

COMMENTS OF THE INTERVENOR, TOWN OF BROOKFIELD, ON THE APPLICATION OF IROQUOIS GAS TRANSMISSION SYSTEM

Town of Brookfield
The Honorable Kenneth V. Keller
First Selectman
Brookfield Town Hall
Pocono Road
Brookfield Center, CT 06805

William J. McNamara, Jr., Esq.
57 North Street
Suite 214
Danbury, CT 06810

TOWN OF BROOKFIELD

BROOKFIELD CENTER, CT 06805

IROQUOIS GAS TRANSMISSION SYSTEM
OPPR/EEB
DOCKET NO. CP 86-523-000

ENVIRONMENTAL IMPACT STATEMENT
TOWN OF BROOKFIELD, CONNECTICUT

JANUARY 1987

I. INTRODUCTION AND SUMMARY

The Town of Brookfield, Connecticut was founded in 1788. It encompasses an area of 20.3 square miles and has a current estimated population of 14,200 (density 700 per square mile).

For the past thirty years, Brookfield's growth has been guided by long-range plans for development. Strictly enforced planning, zoning, inland/wetland and other land use regulations have provided an orderly development while maintaining a traditional New England atmosphere.

As a general comment, the proposed Routes 7 and 7A for the Iroquois Transmission Line have obviously been prepared with less attention than was given to other routes in the Iroquois application. At no time was any town official or agency contacted by Iroquois for information vital to a routing study.

The report does not acknowledge routing proximity to the town's historic district. The report did not note except for the Still River meander, Brookfield's wetland, conserved lands, woodlands, bird sanctuary, undeveloped Linear Park, and aquifer areas. The report fails to adequately address residential safety as explained below in Section IID 1, first because we believe dynamiting will be required in or near residential areas to construct parts of the proposed pipeline through the Town of Brookfield, and second during the intervals between inspections after construction is completed. The report envisions that no building would be demolished; however, the Alternate 7 and 7A pipeline routes, as depicted on the aerial map, do go through several existing buildings. Additional buildings are probably affected by the depicted pipeline routing because of the actual lot sizes versus the 100-foot access width and 60-foot easement width required, and because of construction that has been undertaken subsequent to the aerial mapping, as further explained in Section IIC, paragraphs 2, 4 and 5.

The specific comments in Section II are given as environmental impact statements under the subcategories of A) Environment, B) Water Supplies, C) Economics, and D) Safety.

In summary, the Town of Brookfield, Connecticut contends that the environmental impact to Brookfield, should either proposed pipelines Routes 7 or 7A be constructed in this town, is overwhelming and recommends to the FERC that the application for said proposed Iroquois pipeline routes be disapproved.

As an alternative, we point out that the Iroquois Pipeline Project Report indicated a routing following the Taconic Parkway to Interstate 684, all in N.Y. State, was a more ideal routing for the pipeline. The reason stated for not pursuing that routing more vigorously was the fear of some inconvenient disruption to motorists/traffic on the

Taconic Parkway and because the Taconic was a "scenic" parkway. These objections, however, seem minor and insignificant in comparison to the harsh and severe environmental impact to the Town of Brookfield and its scenic New England character, moreso in view of the fact that the real need in the future for additional gas is in Long Island, the City of New York, and New Jersey.

II. ENVIRONMENTAL IMPACT COMMENTS

A. Environmental Impact

1. Woodlands

Brookfield has remaining just three good-sized parcels of recreational land: the recently acquired and undeveloped Linear Park along the Still River; Lillinonah Woods, a heavily wooded and rugged 67 acres of open space on Lake Lillinonah; and 200 acres in Brookfield Center which includes the Gurski Open Space, Williams Park, and the Miller-Singer-Gerstein-Terrill properties. Of these, only the Lillinonah woodland parcel is not severely impacted by the proposed pipeline Routes 7 or 7A, as further explained below.

The proposed pipeline Alternate 7A would transgress the Arthur Harris Linear Park at the eastern end of the pipeline to a degree that is difficult to ascertain because of the inexactness given in the report for the routing of the pipeline.

Alternate 7 would transgress and/or border on the Brookfield Center 80-acre Gurski land parcel, which is permanent open space. The remainder of this 200-acre parcel has traditionally been used since acquisition as open space, as a wildlife refuge, and for passive recreation. It also contains the Brookfield High School facilities and Williams Park with its tennis courts and children's playground.

This Brookfield Center parcel is made up of open fields, woodlands, wetlands, streams, and small ponds. It is host to a wide variety of animals, including a large population of deer, fox, small mammals, and many bird species. It also provides the bulk of our passive recreation. An extensive trail system is used year-round by hikers, runners, cross country skiers, and the high school cross country team. Less demanding trails are used by our senior citizens for nature walks. The woods, fields, streams, and ponds, with their animal and plant life, are used by school children and scouts as a living laboratory.

An environmental study of this land has never been commissioned. As a result, we do not have a complete inventory of all the varieties of trees, plants, animals, and birds. However, the trail system and town ordinances governing open space have been designed to allow passive recreation, yet not infringe upon a natural refuge for wildlife. For many years, nature and townspeople have harmoniously co-existed.

The proposed Alternate 7 pipeline route would destroy much of the rural, rustic, natural atmosphere so carefully cultivated and preserved over the years. The loss of so much forest would permanently alter the landscape, as well as remove the protection needed for the survival of the many animals and birds living there. With so little undeveloped land remaining in Brookfield, this incursion would be catastrophic.

The proposed Alternate 7A route similarly impacts the town's undeveloped Linear Park and its unassessed wildlife and nature elements. The impact on woodlands and the naturalistic atmosphere of Boookfield is less severe than that of Alternate Route 7.

Finally, the loss of part of the high school property reduces the land available for reserve septic system capacity for the high school.

2. Bird Sanctuary

Brookfield has a parcel of land that has been designated a bird sanctuary which parallels Long Meadow Hill Road in the northern end. The proposed Alternate 7 pipeline would dissect the bird sanctuary parcel its entire length, virtually removing all protection now afforded the wildlife because of the narrowness of the parcel.

3. Septic Systems

Alternate 7 and 7A would cross approximately 100 residential areas, all of which rely on in-ground septic systems. The exact impact on these systems cannot be ascertained at this time because of the inexactness given in the pipeline report of the pipeline routing. However, even if the pipeline could be routed so as to not disturb the existing septic systems, as a minimum the reserve septic system capacity on individual properties would be significantly reduced or totally lost.

4. Wetlands

Wetlands, mentioned generally but not specifically in the Pipeline Project Report, would be encountered throughout the length of both proposed Alternate 7 and 7A. The specific and total impact cannot be ascertained at this time because of the inexactness of proposed pipeline routing. Suffice it to say that, in spite of best intentions, the land contours and drainage paths would be disturbed or disrupted; the vegetation giving siltage and erosion control would be disturbed/disrupted; and nature, i.e. wildlife, fish, snails turtles, beetles, would be disturbed and disrupted or perhaps eradicated.

5. Rivers and Streams

The data provided on page B-278 indicating tributaries to the Still River and Housatonic River in Brookfield classified as C/B is incorrect. The correct classification is B/A.

6. Historic District

The Pipeline Project Report fails to recognize the Brookfield Historic District. The proposed Alternate 7 route would pass within .3 miles of the Historic District. Brookfield town officials were not so advised.

7. Aesthetics

A construction swath 100 feet wide would be cut from north to south center the length of Brookfield, disrupting and partially destroying the rural, wooded appearance that Brookfield has so carefully cultivated and preserved over the years. Because of the permanent 60 to 75 foot wide right of way, the disrupted appearance could never be restored.

8. Publicly-Owned Properties

The statement on page B-285 of the Iroquois application that the Brookfield alternative "does not cross any publicly-owned lands" is incorrect.

a. Alternate 7A crosses the northwest corner, then traverses entire length of the western side of the 43-acre Municipal Center which presently contains:

- -- Brookfield Town Hall building
- -- Brookfield Community Center building
- -- Brookfield Police Headquarters building
- -- Athletic fields

This 43-acre area is located in the geographic center of Brookfield and was purchased to accommodate current and future town facilities. The following Town Center Master Plans, dated 12/9/80, are on file at Brookfield Town Hall:

Master Plan A - Additional Buildings
Master Plan B - Recreation
Master Plan C - Buildings & Recreation

b. Alternate 7 crosses septic fields of Brookfield High School, located west of Long Meadow Hill Road.

c. Alternate 7 crosses 30-acre Williams Park, located in Brookfield Center (Historic District).

d. Alternate 7 crosses over 170 acres in Brookfield Center dedicated as open space and passive recreation areas.

Note that these publicly-owned properties are exempted from eminent domain under the provisions of 16-265 of the General Statutes of the State of Connecticut.

B. Water Supplies (Groundwater)

1. Existing Supply Sources

The entire town relies upon groundwater supplies. The majority of homes and businesses in Brookfield are served by individual wells, with some nieghborhoods served by community water systems where one or more wells of high yield distribute water to a number of homes. We are unable to assess the impact upon groundwater supplies from the Pipeline Project Report.

2. Major Aquifers

Two major aquifers are located primarily in Brookfield, and costly studies are currently being completed to identify, protect, preserve, and establish well head sites for future public distribution systems.

Both these aquifers are crossed by, or are close to, proposed pipeline Routes 7 and 7A. Absolute assurance must be made that no damage or threat to wells over groundwater would result from dynamiting or the interruption of recharge areas. It is unclear just how such assurance could be meaningfully developed.

C. Economic Impact

1. Property Owner

An article written by Bettina Edelstein and published in the December 5, 1986 issue of the Litchfield County Times points out that property values are reduced once it is even rumored that a natural gas pipeline may be constructed through a given area.

Quantifying that impact, the article explains, is difficult because it depends on where the pipeline might cross a given piece of property. This is an insiduous type of loss that cannot be reimbursed to property owners affected in the period before final pipeline routing decisions and surveying have been completed.

After a pipeline survey is completed, the financial impact upon actual properties affected is presumably recovered through the process of eminent domain. However, the neighboring properties are still negatively impacted financially, without any recourse to receive compensation for their loss.

2. Land Development

The proposed pipeline routes, Alternate 7 and 7A, would pass through land developments recently completed, in progress, or in the planning stage. The degree to which these and other land developments would be impacted is not determinable at this time. However, basic questions arise as to land subdivision, roads, access to pipeline-dissected parcels, number of lots lost, etc.

3. Town of Brookfield

The reduction in property values, loss of buildable lots, and potential loss of existing residences explained in C-1, 2, 4 & 5 would mean a loss of tax income to the Town of Brookfield that would not be offset by taxes from the pipeline project, especially over time as the pipeline property is depreciated.

Consequently, town services would have to be reduced or taxes increased for all of the town citizens in order to make up the deficit.

4. Non-conforming Lots

The proposed pipeline Alternate Routes 7 and 7A may cause approximately 80 lots to change from a conforming to a non-conforming zoning-code classification. The pipeline project would be required to obtain the necessary variances through the Brookfield Zoning Board of Appeals and to have recorded in the appropriate town and property records each approved variance.

5. Condemnation

The proposed pipeline routes, Alternate 7 and 7A, may require demolition of 16 or more residential buildings. A detailed route and survey is required to explicitly define this impact.

6. Trespass - (Section D4 below)

D. Safety

1. Page 289, Vol. II, indicates blasting would not be required close to any residential areas. We believe that blasting will be required for the proposed Alternate 7 and 7A routes in the northern center and southeastern sections of Brookfield, which have areas of CrC, WzB, HpC and HrE soils, as defined in the U.S. Department of Agriculture Soil Survey of Fairfield County, Connecticut issued February 1981. The safety measures to protect the residents, public, and wildlife is generally defined in the Pipeline Project Report, but not in exact terms for each specific instance. Further, the means by which the exact safety measures to be taken for each occasion and provisions for advance approval and adherence-to-monitoring are not addressed in the report.

2. Traffic

Long Meadow Hill, Old Middle, Pocono, Route 25, and Route 133 Roads are five (5) of the seven (7) most traveled roads in Brookfield. Further, the Brookfield High School property is located on Long Meadow Hill Road. Brookfield, which has a population density of 700 persons per square mile, believes the traffic problems created by construction of either proposed Alternate 7 or 7A will be more severe and disruptive than that envisioned by the Pipeline Project Report were the pipeline to be constructed along the Taconic Parkway in New York State. The traffic problem severity stems from the population density and the fact that these roads are two-lane, country-type roads, wherein any road or close-to-road work disrupts the traffic flow in both directions.

3. Pipeline Accidents

Natural gas pipelines have a history of unexpected, major accidents as delineated in articles appearing in the Litchfield County Times of November 1986. A periodic inspection by either over-flight, drive-by, or any other means will not guarantee the prevention of such accidents. It is the opinion of Brookfield's town officials that the proposed pipeline Alternate 7 and 7A routes, which would pass primarily through land-use areas zoned as residential, would unduly expose citizens, both resident and transient, to a potential catastropy.

4. Trespass

The cleared and graded proposed pipeline project easement swath, running the north/south length of Brookfield, would be an attraction to owners of land-type vehicles (motorcycles, scooters, dirt track cycles, snowmobiles, etc.) as a place to use their vehicles. Such use of Brookfield-owned lands is prohibited. Because of the noise, the degradation to wetlands, streams and wildlife, and the lack of supervision for safety, the proposed project would greatly expand and distort Brookfield's current problem and expense related to the policing and safety of use of public utility lands. Even should the pipeline project undertake such policing and supervision of the pipeline land, Brookfield's services would need expanding to respond to enforcement and emergency (accident) aid requests.

REFERENCES

Brookfield, Connecticut - Emergency Operations Plan (as revised)

Connecticut Light & Power Company - Gas Emergency Plan, February 1986

Danbury News-Times - Bay State Gas Leak Causes Fire, February 18, 1987

Housatonic Valley Council of Elected Officials - Brookfield Water Resources Atlas, June 1985

Housatonic Valley Council of Elected Officials - Growth Management Option for the Housatonic Valley Region, August 1985

Housatonic Valley Council of Elected Officials - Commuter Travel Patterns, August 1984

Housatonic Valley Council of Elected Officials - New Directions of Water Supply Planning, June 1986

Iroquois Gas Transmission System - Exhibit F-1Y, Vols. 2 & 3, October 1986

Litchfield County Times - Kentucky Gas Line Blast Recalled as "Nightmare" November 1986

Litchfield County Times - Federal Agencies Review Causes of Gas Pipeline Mishaps, November 14, 1986

Northeast Utilities - Emergency Plan - Transmission and Distribution Engineering and Operations, June 1986

State of Connecticut - Master Transportation Plan 1986, Connecticut Department of Transportation

State of Connecticut - General Statutes Annotated, Title 16

Town of Brookfield, Connecticut - Inland-Wetlands and Soils Map, Revision B June 1978, Extracted from USDA Soil Conservation Service Survey

Town of Brookfield, Connecticut - Town Center Master Plan "A" Additional Buildings
- Town Center Master Plan "B" Recreation, December 9, 1980
- Town Center Master Plan "C" Buildings & Recreation, December 9, 1980

Prepared by Galliher, Schoenhardt & Bauer, Architects, December 9, 1980

CR-3, Inc., Land Planners & Landscape Architects

Carroccio & Carson, Consulting Engineers,PC

Town of Brookfield, Connecticut - Brookfield Plan of Development November 17, 1977 and Revisions January 1987

Town of Brookfield, Connecticut - Planning, Zoning, Inland/Wetlands, Conservation Regulations

Town of Brookfield, Connecticut - Base Map, Zoning Map, Subdivision Map, Soils Map, Inland-Wetlands Map, Topographic Map, 1985 (and as revised)

U.S. Dept. of Agriculture - Soil Survey of Fairfield County, February 1981

BROOKFIELD ENVIRONMENTAL IMPACT STUDY
DATED: FEBRUARY 19, 1987

TOWN OF BROOKFIELD

By: Kenneth V. Keller
Kenneth V. Keller, First Selectman

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Iroquois Gas Transmission System - Docket No. CP86-523-000

REQUEST FOR WAIVER OF SERVICE REQUIREMENT

The Town of Brookfield hereby requests that the Federal Energy Regulatory Commission waive the requirement that the comments of the Town of Brookfield be served on all intervenors in this matter for the reasons that compliance with said requirement would impose a financial burden on the Town of Brookfield and that said comments would be of no substantial benefit to said intervenors because said comments only address the impact of the proposed pipeline on the Town of Brookfield.

Dated at Brookfield, Connecticut, this 19th day of February, 1987.

TOWN OF BROOKFIELD, INTERVENOR

By
William J. McNamara, Jr.
Its Attorney

CERTIFICATE OF SERVICE

I hereby certify that on the 19th day of February, 1987, the foregoing comments were served on all of the parties to the Iroquois Gas Transmission System application.

Dated at Brookfield, Connecticut this 19th day of February, 1987.

William J. McNamara, Jr.
Attorney for the Town of Brookfield

STATEMENT TO THE U.S. SENATE ENERGY COMMITTEE 7/20/87
Newtown Opposition to Pipeline Encroachment- N.O.P.E.

I. Introduction

N.O.P.E. is a grassroots representative community organization of concerned Newtown citizens, whose purpose is to gather and disseminate information regarding the progress of the Iroquois Gas Pipeline Proposal.

II. Summery Position

The Iroquois Gas Transmission System (IGTS) proposes to make approximately 120 million cubic feet of Canadian natural gas available to Connecticut's local distribution companies. An additional 238 million cubic feet are to be transported across Long Island Sound where it will backfeed their gas transmission and distribution system.

To implement this plan in Connecticut, approximately 50 miles of right-of-way (excluding the Farmington Lateral), 100 feet wide, will be required for construction, of which 65 feet will be retained as a permanent right-of-way. Nearly 11 miles of this pipeline right-of-way passes through the Town of Newtown (alt. 7). Looking beyond the specific negative environmental impact of this proposal, we feel it is IGTS' justification of the need for this gas transmission line that must be closely examined.

IGTS' cites the following two reasons to justify its proposal:

1. Predicted shortfalls in the future gas and energy supplies based on projected energy needs.
2. Advantages accruing from a diversity of fuel sources to cope with potential interruption of fuel sources and to take advantage of lower cost alternatives available.

A close examination of these justifications reveals what we see as invalid assumptions and inferences made through the selective use of statistical information.

III. Predicted Shortfalls and Needs

Connecticut's Office of Policy and Management (OPM), Energy Division, which is responsible for implementing Connecticut's energy policy, states that the "natural gas supply in Connecticut continues to be adequate to serve all existing customers at all times of the year." Their studies recognize that further growth is restrained by transmission and distribution line availability. The need for increased supply and the ability to stimulate additional demand are inextricably intertwined. Just as no builder would install a gas-fired heating/hot water system in a new home without assurance of available gas distribution; neither can potential increases in demand for natural gas in Connecticut be accurately predicted without the supporting gas distribution infrastructure actually in place. Natural gas does not store easily, nor can its routing be changed flexibly. The State OPM notes that gas distribution companies have not publicized periodic forecasts of local demand or their supply plans. We in Newtown cannot assess nor predict how a practical local distribution line system would be expanded to serve more than the existing 675 or so customers in the town. We have seen great detail on how the natural gas supply will be brought through Connecticut but no details on how the supply will be used in Connecticut.

An independent Congressional study has indicated that IGTS' projections of future need, based on a study by Foster Associates, are high. This study projects a 1.2% annual growth rate.

> Quoting Congressman John Rowland: "...the (report) seriously damages the credibility of Iroquois' needs assessment for the state..."

While the prediction of future needs may be debated inconclusively by both sides, it is fair to say that the issue for Connecticut, is not one of filling an immediate shortage. The real question is whether we should stimulate future increases in gas usage based on IGTS' proposal.

Using Brown's Directory, Connecticut's local gas distributors purchased 85 billion cubic feet of gas in 1985 to supply 75 billion cubic feet of gas to the customers they serve. The proposed IGTS' allocation for Connecticut will add an additional 43 billion cubic feet per year, for a total supply of over 150% the 1985 usage figures, including reserves. Using the non-stimulated growth rate of 1.2% from the Foster study cited in IGTS' proposal, and assuming a constant increase in growth with no efficiencies through improved energy conservation measures, Connecticut would not be able to effectively use all of this additional gas allocation until the year 2015.

Future demand estimates rely on more than residential usage of gas, since there is some flexibility in shifting to different fuels in the electrical generation area, the demand and capacity statistics overlap. Using data from the Electrical World Directory and the OPM Energy Assessment Report, the electrical generation plants in Connecticut have a generating capacity of 8300 megawatts. The 1200 megawatt capacity of Millstone 3 is included in this figure, but Seabrook I is not. Of these 8300 megawatts, 6568 are considered to be Connecticut's share. Connecticut has been an electricity exporter since Millstone 3 came on-line in 1986. Seasonal peak demand in 1985 was only 5700 megawatts. If the Seabrook I nuclear plant is on-line in 1987, as United Illuminating expects, it will add another 247 megawatts to the State's supply.

In addition, Connecticut's utilities have agreements to import another 2000 megawatts from the Hydro-Quebec project. A study is already underway to solve the transmission and distribution deficiencies which will allow this supply to be brought into the State.

With all of these facilities in place, but without accounting for co-generation capacities or power generated by resource recovery, we are still anticipating a committed capacity of 8815 megawatts.

This total is the equivalent of 150% of 1985 demand. Using the previously cited 1.2% growth rate predicted by the Foster study, this committed capacity should satisfy the State's projected electrical needs through the year 2015 - nearly 30 years into the future. These figures do not take into account any savings from continued energy conservation measures.

Using the growth rate predictions cited by IGTS' proposal, it becomes obvious that the "predicted shortfalls" in future gas and energy supplies are neither immediate nor near-term. The only "benefits" of this increased gas supply accrue to the members of the IGTS' consortium: the capacity to stimulate future gas usage, and the ability to export Connecticut's excess capacity to other states. The specific benefits accruing to Connecticut's residents over the next 30 years are minimal.

> Rep. Rowland: "...Few of us are willing to expend the monies needed to convert to gas in the hopes of saving a few dollars several years down the road...another obstacle to conversion is an underdeveloped local distribution system....many of us involved with the issue believe that if the need does not exist, all other concerns become moot. We should not have to review the environmental impact... if the pipeline is not needed."

In exchange for the specious promise of future need fulfillment, all Newtown neighborhoods in the vicinity of eleven miles of pipeline are being asked to bear the impact. We find this cost/benefit analysis severely slanted in favor of the IGTS' members.

IV. Diversity of Fuel Sources

The OPM State Energy Policy includes the following major component among its eight stated goals:

> "Where practicable, replace energy resources vulnerable to interruption due to circumstances beyond the state's control with those less vulnerable."

STATEMENT TO THE U.S. SENATE ENERGY COMMITTEE 7/20/87
Newtown Opposition to Pipeline Encroachment- N.O.P.E.

We in Newtown support this goal. We would also like to focus on the words "where practicable".

From our vantage point, this phrase does not connote a crisis or emergency state of mind. It is very different than the need to satisfy an energy shortage during a "wartime" situation. More than 40 years after the end of World War II, the United Kingdom still carries on programs to re-plant trees to replace those consumed for fuel to support wartime military production. Is Connecticut's present situation so alarming in 1987 that we have to clear a 100 foot wide pipeline right-of-way that traverses nearly 50 miles of the state? Is the IGTS proposal predicated on some equivalent of wartime crisis?

Making additional fuel supplies available, feeding co-generation and siting resource recovery to burn our mountains of garbage and optimize fuel costs are all desirable goals. However, these should be planned intelligently with strong local participation, and not in an "emergency" mode justified by exaggerated need, exploiting a "loophole" in current regulatory procedures (Order 436-Optional Expedited Certificate).

> Again Rep. Rowland: "...I co-authored a bill...which would limit the use of...'Fast Track' procedure to pipeline projects of 15 miles or less..."

The OPM's Energy Policy goal of replacing vulnerable foreign resources is potentially at odds with the IGTS proposal. IGTS is a joint venture involving the Canadian Trans-Canadian Pipeline and local U.S. gas suppliers. Far from being xenophobic, we wish only to point out that, while the IGTS proposed pipeline would add diversity to our energy supply, we will in fact, be purchasing this supply from a foreign country. Canada is our neighbor and, under most circumstances our "friend"; it is not, however, a U.S. possession nor under U.S. control. We should also consider the impact of a long-term commitment of importing Iroquois Gas and Hydro-Quebec electricity on the U.S. balance of trade situation.

The cost and supply of gas available to Connecticut through the IGTS pipeline would forever be subject to Canadian control. Those in the U.S. homebuilding industry who were adversely affected by Canada's refusal to ship siding to the U.S. building supply companies in the fall of 1986, did not come away with the impression that they were treated as "friendly" neighbors.

V. The Backyard Mentality

Finally, we feel it is necessary to respond to claims by pipeline proponents that opposing viewpoints all suffer from parochialism.

Residents in the pipeline paths - yes, there are many - have been accused of employing a "backyard mentality" in reaction to this proposal. Further, proponents have stated that the proposed right-of-way construction would not decrease property values. Our own local poll of area Realtors, and recent experiences of several homeowners near the proposed route shows this to be totally incorrect. Properties less than 1/3 mile from the actual right of way may decline in value up to 20%, depending on the distance and particular aesthetic impact to a particular parcel. This is economic damage beyond partial compensation paid to property owners actually on the right of way.

Parochialism is not the exclusive domain of pipeline opponents. IGTS has demonstrated its own self-interest in demanding its own exclusive right-of-way which it intends to acquire by eminent domain measures. Newtown already has underutilized railroad rights-of-way and highway rights-of-way, both in place and in the planning stage, as well as the existing gas pipeline which already traverses the town. An increased gas supply will also require additional rights-of-way to allow distribution to new users. Furthermore Northeast Utilities is involved with Hydro-Quebec, which will also require additional rights-of-way to transmit power from Canada. With all of this available right-of-way and future right-of-way need, IGTS hasn't shown any initiative to economize on the growing number of rights-of-way. Instead, they demand, in the greatest percentage of their proposal, a new and exclusive right-of-way. Is this not parochialism? Is Connecticut's energy situation so desperate, and its wealth in open land so great, that it can afford to grant everyone who claims a contribution to its energy supply a private right-of-way? We think not.

VI. Conclusion

We claim no omniscience. There may be more flaws in the IGTS proposal than those we focused upon here.

We can conclude, however, that their proposal is not supported by compelling need. Nor does it fully comply with the State's official energy policy. Rather, the current proposal is seriously deficient. Going forth with IGTS' proposition, for questionably needed energy supplies, would prevent other energy suppliers from making proposals of higher merit, at some point in the future.

From Newtown Connecticut's viewpoint, implementation of the IGTS pipeline proposal holds little or no benefits. There has been a distinct lack of sensitivity on Iroquois' part in planning the use of Connecticut's land and waters. It sets up the member companies as net energy exporters, and has given them an essentially non-competitive market situation regarding the supply and distribution of natural gas in this state. Further, by demanding an exclusive right-of-way, the IGTS proposal chooses to ignore alternative avenues of fuel transmission using existing or planned rights-of-way. This fails to serve individual and collective rights and concerns of this State's residents.

We hold that the IGTS proposal is not simply flawed. It is a proposition predicated on assuring the future supply of gas through high cost, foreign sourced, inflexible transport facilities, with little regard for the needs of the citizens of the State of Connecticut in 1987, or future generations. Lastly they have coupled this proposal with the "fast-track" process.

Although we have not yet embarked on a significant monied legal and technical campaign to stop the pipeline, IGTS has as yet given us no reason to avoid pursuing this option. In terms of: environmental factors, impact on our property rights and values, and the abrogation of our rights as citizens, our incentive to do so is strong.

We have faith that you, as our elected voice will make a long, drawn-out, and expensive legal battle unnecessary.

Signed,
Eugene Garriepy

Eugene Garriepy, Chairman
(203) 426-3509

Project Coordinators
Eugene S. Orlowski
James R. Mitchell

Richard N. Anderson, Vice-Chairman
Joanne E. Charles, Secretary
Robert C. Thompson, Treasurer

NOPE.720

Naromi Land Trust Inc Sherman Connecticut 06784

NAROMI LAND TRUST, INC. is a general membership, not-for-profit, conservation organization dedicated to the protection of natural resources of the Town of Sherman, Connecticut. Naromi Land Trust represents the interests of the people of the Town of Sherman. The following resolution was adopted by the membership of Naromi Land Trust at its Annual Meeting on July 17, 1987:

> Although we agree that natural gas is cleaner, cheaper and politically more reliable than oil, we, the members of Naromi Land Trust, object strenuously to the "Alternate 7" route of the Iroquois Gas Transmission System pipeline where it is proposed to cross land in the Town of Sherman, Fairfield County, Connecticut. In little over one mile, the pipeline would disturb steep slopes, dedicated Open Spaces, active farmland, sensitive wetlands, rare plant species, an important tributary of the Housatonic River, a major wildlife sanctuary owned by Naromi Land Trust, an American Indian archeological site and the Appalachain Trail. Although the pipe itself may have moderate impact, clearing and maintaining the right-of-way and building the roads required for the construction and maintenance of the Pipeline would have a major environmental impact. We, the members of Naromi Land Trust, believe that a pipeline should only be built along existing rights-of-way, preferably along abandoned railroad beds or in the median strips of limited access highways, where the environment has already been disturbed and where the roads required for construction and maintenance already exist.
>
> Adopted unamimously, July 17, 1987
>
> Calvin E. Eells
>
> Calvin E. Eells, Acting Secretary

cc- Lowell P. Weicker, Jr., United States Senator
Christopher J. Dodd, United States Senator
Nancy L. Johnson, United States Representative, Sixth District
William O'Neill, Governor, State of Connecticut
Joseph Lieberman, Attorney General, State of Connecticut
others

Copies of comments previously submitted to the Federal Energy Regulatory Commission are attached.

Naromi Land Trust Inc Sherman Connecticut 06784

January 15, 1987

Martha Hesse, Chairman
Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, DC 20426

RE: Docket #CP-86-523-000
IROQUOIS GAS TRANSMISSION SYSTEM
SCOPING OF DRAFT ENVIRONMENTAL IMPACT STATEMENT

Dear Madam Chairman:

Naromi Land Trust is a private, non-profit organization dedicated to the protection of natural resources of the Town of Sherman, Connecticut. We object to the proposed routing, and all proposed alternate routings, of the Iroquis Gas Transmission Pipeline because of the disastrous effect it would have on one of the most beautiful, and fragile, natural environments in the Northeastern United States. We believe, if a need for the proposed pipeline can be justified at all, that it should be routed along existing highway rights-of-way, in the medians of Interstate highways, where no further environmental impact would be felt and where the roads required to construct and maintain the pipeline already exist. It is unconscionably wasteful to subject the environment to yet another unrelated right-of-way. Prudent planning would gather transportation and utilities into corridors.

In addition to our concern for the environment in general, Naromi Land Trust's opposition is based on its position as a property owner directly affected by proposed Alternate 7. Within the mile-and-one-half wide corridor of Alternate 7 lie nine Naromi land Trust properties with a combined area of 324 acres, more than half of the land which Naromi Land Trust has acquired for perpetual protection over the last eighteen years.

The property most directly affected by the proposed alternate route is the Land Trust's Wimisink Valley Sanctuary, a 51-acre wildlife refuge which, according to Iroquois's maps, would be bisected by the Pipeline. The Sanctuary covers a broad wet meadow drained by the Wimisink Brook, a significant tributary of the Housatonic River. Construction of a pipeline across 1500 feet of wetland soils would cause irreparable damage to an important ecosystem. In addition to being a refuge for beaver, whitetail deer and migratory waterfowl, the Wimisink Valley Sanctuary is also an American Indian Archeological site. Situated in a broad valley near a major river, it is a likely site for an Indian settlement. Four types of Indian artifacts found in surrounding soils indicate that native Americans lived on the site. The Connecticut Archeological Survey includes this area as Site No. 6-FA-117. The Iroquios maps, which indicate other archeological sites, do not show this area as an archeological site.

The Wimisink Valley Sanctuary, along with the other Naromi Land Trust properties affected by the Alternate 7 corridor have been preserved through the great sacrifice of time, effort and subtance of dedicated volunteers of the Town of Sherman for the benefit of present and future residents of this Town and Region. We do not want to see their achievements trampled by this poorly conceived and insensitive proposed encroachment.

During 1979 and 1980, Naromi Land Trust worked closely with the National Park Service to secure 260 acres in the north end of Sherman as part of a permanent "wilderness" corridor for the Appalachian Trail for which Congress appropriated substantial public funds. According to Iroquois's map, Alternate 7 would cross the Trail in this area. Obviously, if the Gas Transmission Pipeline is to be built, it must cross the Appalachian Trail somewhere. If, as I have suggested, the Pipeline followed highway rights-of-way which the Trail must cross anyway, there would be one less "non-wilderness" encroachment on the Appalachian National Scenic Trail, an historic recreational resource of national significance in which countless resources, public and private, have been invested.

Yours very truly,

Richard P. Donohoe, President
NAROMI LAND TRUST, INC.

RPD/hs

cc: William O'Neill, Governor, State of Connecticut
Joseph Lieberman, Attorney General, State of Connecticut
Lowell P. Weicker, Jr., United States Senator
Christopher J. Dodd, United States Senator
Nancy L. Johnson, U. S. Represenatative, 6th District
Dr. David Poirier, Staff Archeologist, Ct. Historical Comm.
Carmine Tronlone, Ecology and Environment, Inc.
David Thompson, U. S. Soil Conservation Service
Kenneth F. Grant, First Selectman, Town of Sherman
Margery Braren, Chairman, Sherman Inland Wetlands Commisssion
Ralph H. Goodno, Jr., Exec. Dir., Housatonic Valley Assoc.

Naromi Land Trust Inc Sherman Connecticut 06784

February 18, 1987

Federal Energy Regulatory Commission
825 North Capitol Street, N. E.
Washington, DC 20426

REFERENCE: OPPR/EEB
IROQUOIS GAS TRANSMISSION SYSTEM
DOCKET NOS. CP86-523-000 AND CP86-524-000

ATTENTION: Richard P. O'Neill, Director
Office of Pipeline and Producer Regulation

Dear Mr. O'Neill:

Thank you for your letter of February 3, 1987, responding to my letter of January 15 to Chairman Hesse. In addition to my previous letter, I submit herewith addtional comments in connection with a certain property of Naromi Land Trust called the "Wimisink Valley Sanctuary", which would be bisected by Alternate Route 7 of the pipeline as shown on Iroquois's maps.

The Wimisink Valley Sanctuary comprises 51 acres at the intersection of Routes 39 and 55 in Sherman, Connecticut. The Sanctuary stretches for more than 1100 feet along Route 55 and for more than 2000 feet along Route 39. It is part of a wetlands system that extends another 1900 feet along Route 39. Crossing any part of the system would inflict irreparable damage to a delicate wetlands environment.

The Wimisink Valley Sanctuary also contains several species of rare plants referred to in their letter to the Commission of January 23, 1987, by Melvin Lee Bristol and Diana Knapp Bristol, most particularly the largest known Swamp White Oak (Quercus bicolor) in the State of Connecticut. Construction of a pipeline in the vicinity of these plants would likely alter ground water conditions sufficiently to threaten the plants even if the pipeline avoided them.

The Wimisink Valley Sanctuary is maintained as a wildlife refuge in perpetuity by a recognized conservation trust for the benefit of the general public. Together with the rocky wooded slope on the neighboring property to the west which is the Open Space reserve of a nearby subdivision, the entire area is one of scenic beauty. Construction of a pipeline would require the destruction of trees and the maintenance of a permanently cleared right-of-way which would destroy the aestetic appeal of this nature preserve.

Naromi Land Trust believes that shifting the pipeline to one side or the other of the proposed alternate route in order to avoid the Wimisink Valley Sanctuary will cause no less damage to the environment because the characteristic terrain in Sherman is hilly and wooded, the soils are shallow with and abundance of exposed ledgerock and wetlands abound.

Yours very truly,

Richard P. Donohoe, President
NAROMI LAND TRUST, INC.
RPD/hs

cc - William O'Neill, Governor, State of Connecticut
Joseph Lieberman, Attorney General, State of Connecticut
Lowell P. Weicker, Jr., United States Senator
Christopher J. Dodd, United States Senator
Nancy L. Johnson, U. S. Representative, 6th District
M. Adela Eads, State Senator, 30th District
Oscar Rogg, State Representative, 67th District
Margery Braren, Chairman, Sherman Inland Wetlands Commission
Ralph H. Goodno, Jr., Exec. Dir., Housatonic Valley Assoc.

IMPACT OF THE PROPOSED IROQUOIS GAS TRANSMISSION SYSTEM ON THE TOWN OF SOUTHBURY, CT

TESTIMONY submitted to the Senate Committee on Energy and Natural Resources at their hearing in Newtown, CT, July 20, 1987. (Ref: FERC Docket Nos. CP86-523-000 and CP86-524-000).

On behalf of "Southbury Neighbors Against the Pipeline" (SNAP) by Frederick R. Sell, resident of Southbury.

Senator Weicker and members of the Committee, my name is Frederick Sell. I live in Southbury and am submitting this written testimony today on behalf of residents of the town concerned about the impact of the proposed Iroquois Natural Gas Pipeline on our living environment. One of the proposed Iropuois routes would run 7.4 miles through Southbury, initially affecting 90 acres of land.

We have formed an organization called SNAP, "Southbury Neighbors Against the Pipeline", to insure that our concerns are properly presented and addressed by our elected representatives and the Federal Energy Regulatory Commission (FERC).

(Page 1 of 2 plus enclosure)

(Page 2 of 2 plus enclosure)

On February 16, 1987, SNAP submitted to FERC, comments on the scope of Iroquois' Draft Environmental Impact Statement being prepared by FERC. These comments resulted from an extensive review by our group of the IGTS's October 1986 Environmental Report and document our concerns about the proposed project.

We have included a copy of our comments to FERC in this testimony and ask that it be reviewed in the course of your deliberations on this issue.

Thank you for having the Senate Energy and Natural Resources Committee hearing in Connecticut to hear our concerns today. We trust that your demonstration of good faith and active interest will carry forward in whatever influence you have on FERC's deliberations on the Iroquois proposal.

As citizens, we are following this project very closely and appreciate all efforts to keep us well informed of the status and progress of this case.

Respectfully submitted,
Southbury Neighbors Against
the Pipeline, P.O. Box 565

Frederick R. Sell

Frederick R. Sell, Southbury
July 20, 1987

COPY For review by the SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES, submitted as testimony by "Southbury Neighbors Against the Pipeline", July 20, 1987.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Iroquois Gas Transmission System) Docket Nos. CP86-523-000
and CP86-524-000

COMMENTS ON SCOPE OF DRAFT ENVIRONMENTAL IMPACT STATEMENT SUBMITTED BY LAUREL A. CASAZZA, INTERVENOR ON BEHALF OF SOUTHBURY NEIGHBORS AGAINST THE PIPELINE

February 16, 1987

We are residents of the Town of Southbury, Connecticut concerned about the impact of the proposed Iroquois Gas Transmission System (IGTS) on our living environment. We therefore submit the following comments concerning the scope of the Draft Environmental Impact Statement (DEIS) for this proposed project, in response to the Commission's September 3, 1986 notice. Our comments are based on a careful review of IGTS's October 1986 Environmental Report (IGTS ER) and supplemental information about our community.

I. PRELIMINARY STATEMENT

Congress has given the Commission the public responsibility to insure that adequate energy supply is available to regions of this country with minimum impact on the environment.

Many questions and issues have been raised in public forums about the merits of the IGTS proposal. The scope of the Commission's investigation of IGTS must address these matters, particularly the need for and alternatives to this project.

SNAP: COPY

Citizen groups like ours will remain opposed to the project until these matters are conclusively evaluated. Failure on the part of the Commission to do this will only prolong this issue to everyone's disadvantage. Such would seem to run counter to the Commission's intent of expediting project reviews, cutting bureaucratic "red tape", and eliminating government waste.

II. PROPOSED DEIS SCOPE TOPICS

A. METHODOLOGY

If the fate of IGTS were left up to forces of an unregulated free market (without the advantage of eminent domain), it would not be built. IGTS simply could not afford to adequately compensate all affected landowners. In the absence of such a free marketplace, there must be a systematic and comprehensive means of evaluating IGTS in order to correctly determine if the public benefits outweigh the costs.

A quantitative approach should be developed which measures and values all critical factors (especially irrevocable impacts), provides a common denominator for comparison, properly weighs all considerations, and adds up the values (costs) of all of the impacts so that an overall conclusion can be reached.

SNAP COPY

B. REVIEW OF THE NEED FOR THE VOLUME OF GAS PROPOSED BY IGTS

Needless environmental impact is avoided if IGTS is not needed and not built. Justification provided in the IGTS ER is insufficient.

The need for the proposed volume of gas should be examined under a more comprehensive methodology which objectively considers energy demand and supply projections. Fuel substitution possibilities should be evaluated thoroughly.

For example, Figure 1-7 of the IGTS ER indicates that 300 BCF of gas were consumed in 1984 in the Northeast to generate electricity. This represents 233% of the volume IGTS proposes to supply. This electricity could be generated by other means with less overall environmental impact, thereby freeing existing gas capacity to serve new non-electric uses anticipated by IGTS.

One possibility for such substitution may be the transmission of additional hydro power from Quebec's La Grande Complex along existing power, pipeline or highway right-of-ways. A similar option would involve the construction of several large gas-fired power plants near the origin of IGTS.

The gas reserved for Connecticut from the IGTS represents 63% of the present consumption rate. The IGTS ER and independent studies project an increase in demand of approximately 1% a year for the next 20 to 25 years.

SNAP: COPY

Further studies are required to confirm the actual requirements for additional gas in Connecticut.

C. COMPARISON OF ALL MAJOR NATURAL GAS SUPPLY ALTERNATIVES

If the incremental gas supply proposed by IGTS is really needed in the Northeast, then there may be other gas alternatives which minimize the environmental impact.

The proposal by the Tennessee Gas Transmission Co. to use its existing pipeline system and right-of-ways appears to be a viable alternative to IGTS.

Other alternatives identified and summarily dismissed in the IGTS ER should also be reevaluated under a more objective and comprehensive methodology.

D. SPECIFIC DETERMINATION OF BLASTING REQUIREMENTS

Blasting for grade and trench excavation could have far reaching environmental consequences in Southbury. The IGTS ER has not provided sufficient detailed information to fully assess this impact.

Page 4-21 of the ER seems to indicate that extensive blasting will be required from mile point 287.6 to 290. In this vicinity, many new homes have been built which are not clearly shown on the maps or aerial photographs provided by IGTS.

Although not indicated by IGTS, blasting may also be required along the foot of Rattlesnake Hill (Mile Point 286 to 287) in Platt Park and close to South Britain.

SNAP: COPY

E. STORM RUNOFF AND EROSION CONTROL

IGTS's proposed Soil Erosion and Sedimentation Control Plan should be thoroughly reviewed by independent authorities that have extensive civil engineering and construction experience in terrain such as Southbury.

The IGTS ER (page 3-5) indicates that as much as 12 to 15 months may elapse between right-of-way clearing and final restoration. During this time, construction activities will decrease the ground's capacity to absorb storm water, possibly causing flooding and property damage in areas below long, steep grades traversed by IGTS.

F. VULNERABILITY OF GROUND WATER SUPPLIES

IGTS has indicated that blasting may adversely affect water wells within 1.5 miles of the pipeline route. Nearly all residents in the town are dependent on public or private well water supply and the band indicated by IGTS suggests that over half of the town's population could be affected, depending on blasting requirements.

The procedure described in the IGTS ER (page 5-35) to mitigate this problem grossly underestimates the major uncertainty and inconvenience caused to residents who must cope with preconstruction testing and/or water supply degradation.

SNAP: COPY

The pipeline will also traverse significant aquifers in Southbury. The precise location of these aquifers and the potential impact needs more careful study than given in the IGTS ER. Also, several residents in South Britain receive their water supply from springs at the foot of Rattlesnake Hill in the path of IGTS.

G. BULKY WASTE DISPOSAL

The quantity of debris requiring on and off site disposal needs to be determined. On site disposal may adversely affect restoration, while off site disposal requires a full review of the trucking and dumping requirements, impacts, and costs.

A recent proposal to acquire 7.3 acres of bulky waste disposal area in Southbury for $636,000 was voted down by residents. The IGTS generated waste will have to be trucked out of town.

H. DAMAGE TO LOCAL ROADS

Local roads will be used to haul heavy equipment and materials on and off the right-of-way. The load limitations of our roads need to be determined, and the impact of IGTS traffic assessed, and provisions established for protection and repair.

SNAP: COPY

I. PLATT PARK

The proposed IGTS route (mile point 286 to 287) passes along the western border of Platt Park, one of Southbury's few natural preserves (see FIGURE 1). Removal of trees in this portion of the route will severely mar the scenery viewed from the steep rock overlooks on the hiking trail in the park. A greater impact may result if landslides on the steep slope are caused by any required grade or trench blasting.

J. HISTORICAL DISTRICT OF SOUTH BRITAIN

South Britain is a quaint New England village nestled along the Pomperaug River which has recently been established as an Historical District and registered with the State. The aesthetic and ground water supply impact of the proposed route which passes along the eastern boundary of this district should be evaluated.

K. OTHER CULTURAL RESOURCES

The IGTS ER has identified 14 archeological sites in the vicinity of the proposed pipeline, giving an indication of the archeological and historical importance of this area. It is doubtful all such sites have been identified and a comprehensive survey with professional consultants should be undertaken to fully inventory this resource.

SNAP: COPY

L. OTHER VISUAL AESTHETIC IMPACTS

Two-thirds of the land on the proposed pipeline route through Southbury is covered with mature stands of trees. Clearing a 100 foot right-of-way through these woodlands will leave an obvious and indelible scar across the town, breaking up the otherwise picturesque countryside seen by travelers on the public roads and from various scenic overlooks. In the center of town, for example, the steep cut made up Georges Hill will interrupt the mountain-like scenery currently enjoyed by thousands of travelers daily on Interstate 84 and the town's South Main Street.

In addition, the proposed route would cause considerable damage to the aesthetic quality of several neighborhoods (Pierce Colonial Acres, Nod Hill, and Amos White) where it would not only destroy trees, but cut through or very close to homes.

M. SURVEY FOR RARE PLANT LIFE

About 90 acres of land will be cleared for the IGTS right-of-way through Southbury. Threatened or endangered plant life or significant plant communities may be present on this land which have not yet been identified. The IGTS ER lists the Southbury Hemlock Ravine in Table 4-14 and on page 4-204 indicates observation of the Swamp Cottonwood at mile point 285.5.

SNAP: COPY

N. SURVEY OF IMPORTANT WILDLIFE AND HABITATS

Given the amount of acreage to be destroyed, a systematic survey of wildlife and habitats of special interest and value should be undertaken in the vicinity of the proposed route.

Wildlife in the town's Platt Park and Southbury Land Trust Nature Preserve at mile point 288.5 may be adversely impacted by IGTS, particularly if blasting is required in these areas. Great Blue Heron and beavers, both species of concern in Connecticut, inhabit a pond within 0.1 miles of the proposed route at mile point 283.2.

O. PUBLIC HEALTH, SAFETY AND CONVENIENCE - DURING CONSTRUCTION

Southbury has been proposed as the central warehousing and worker reporting site for IGTS construction activities in Connecticut (IGTS ER page 5-90). A comprehensive evaluation should be made of the risks, inconveniences, and added police patrol costs that this traffic and influx of out-of-town construction workers places on the town's residents. Proper account should be taken of the large senior citizen makeup of Southbury's population.

Other potential adverse impacts to public safety and convenience should be properly costed in evaluating IGTS, including but not limited to:

- Safety of children playing in the vicinity of the open pipeline trench or parked construction equipment.

SNAP: COPY

- Fire caused by construction activity.
- Accidental spills of toxic substances.
- Increased pollen levels.
- Noise and dirt from construction activity.
- Traffic tie-ups at crossing points on roads, including Main Street South.
- Tunneling under Interstate 84.
- Construction mishap crossing the Algonquin Gas Transmission Line.

The IGTS ER discusses mitigation steps for some of these concerns. However, remember Murphy's Law, "If it can happen, it will happen."

P. PUBLIC HEALTH, SAFETY AND CONVENIENCE - LONG TERM

A specific localized assessment of public exposure to a major pipeline explosion and fire should be conducted, taking into account situations unique to Southbury including:

- a major geological fault crossed by the pipeline,
- ripple effect of an explosion on the Algonquin Gas Transmission line or Interstate 84, and
- the presence of three relatively immobile populations in close proximity to the route (Southbury Training School - 1100 handicapped residents, Heritage Village - 4200 elderly residents, and River Glen Convalescent Home - 150 patients).

The adequacy of one IGTS district in Connecticut and the proposed emergency plan should be thoroughly reviewed along with additional costs that the town would incur for emergency preparedness.

SNAP: COPY

Ongoing public inconvenience from IGTS should be valued and counted as a cost of the project. These include unwanted intrusion and noise that will disrupt the quiet peaceful enjoyment that property owners are entitled to, such as:

- low flying aircraft inspecting the pipeline once a week,
- periodic right-of-way maintenance involving noisy equipment,
- motorized dirt bikes, snowmobiles, and other RTV's using the route that will be easily heard a half mile away, and
- hunters and target shooters using the right-of-way as a convenient place for shooting.

Q. LAND USE AND PROPERTY VALUES

The economic impact of IGTS on land use and property values in Southbury needs to be thoroughly appraised.

Southbury has been, and will continue to be, one of the fastest growing towns in the state of Connecticut. Maps and photographs of the town furnished by IGTS are already outdated and current detailed information should be obtained by the Commission. The probable effect of IGTS on future development of the town's business and social center, streets and roads, and existing and planned subdivisions, including a full calculation of opportunity costs should be performed in liaison with the town's Planning Commission.

Property values are high, reflecting the scenic beauty and country ambience of the community. (An unimproved 1.5

SNAP: COPY

acre building lot is selling in excess of $100,000.) A local survey of property depreciation that may result from the IGTS should be undertaken to obtain a fair assessment of this cost burden to the project. The IGTS ER makes no provision for compensating property owners off the right-of-way whose property may be devalued by IGTS. Prior studies performed in other communities may not properly reflect local attitudes relative to real estate values.

R. RIGHT-OF-WAY REQUIREMENTS AND FINAL ALIGNMENT

The need for a 100 foot initial and 60 foot permanent mainline right-of-way should be reviewed. This seems unreasonable relative to the 75 foot initial and 50 foot permanent requirements on the proposed lateral. If additional right-of-way is being reserved for future use, then this use should be anticipated in a full environmental impact review of the IGTS proposal.

If environmental impacts are to be mitigated by minimizing or realigning the right-of-way, then these areas should be clearly specified and evaluated before the project is given final approval.

S. EASEMENT ACQUISITION AND EMINENT DOMAIN PROCEDURE

IGTS has not provided any definition in their environmental report of its proposed easement and property acquisition plans, yet this phase of the project has a definite impact on the health and well being of the

SNAP: COPY

affected population and should be measured and costed to the project like all other environmental impacts.

Property owners on the final IGTS route bear the full burden of insuring that they receive just compensation for the use and devaluation of their properties. The project schedule proposed by IGTS allows insufficient time for affected property owners to seek outside appraisals and expertise to prepare for and negotiate responsibly with IGTS prior to the imposition of eminent domain.

The costs borne by property owners in defending their rights, and the adverse impact of the physiological stress should be considered. The productive energies of these people will also be diverted, and contributions to normal vocational, community, and family activities will suffer. The cost burden incurred by the public court system also needs to be assessed.

T. REVIEW OF DETAILED ENGINEERING PLANS AND SPECIFICATIONS

The mitigation measures suggested in the IGTS ER are merely an outline of how certain environmental impacts can be reduced. However, the actual impacts are dependent on how specific mitigation measures are eventually applied along the route.

A thorough review of IGTS's detailed engineering plans and specifications should be conducted by an independent outside authority accountable to the public, with full power to approve or veto the final plans before

SNAP: COPY

construction proceeds. Existing permitting requirements may not adequately fulfill this function. Therefore, the adequacy of existing procedures for protecting the public interest should be evaluated and recommendations made as to how a thorough design review can be accomplished.

The costs incurred by the public in conducting this detailed plan review should then be evaluated and costed to the project.

U. INSPECTION AND ENFORCEMENT

Residents bearing the potential environmental cost burden of IGTS deserve positive and independent assurance that IGTS is built in accordance with final approved plans and specifications. Added costs and inconvenience will result to the public if this is not done.

Therefore, a comprehensive review of the adequacy of current public enforcement provisions (independent of IGTS internal activities) and the need for additional public involvement should be conducted. Such activities should include worker certification, material inspection, construction inspection, environmental monitoring and inspection, and performance and completion bonding. Public inspectors should have authority to stop construction and/or specify remedial action by IGTS.

The costs to be incurred by the public for inspection and enforcement activity should be estimated and costed to the project.

SNAP: COPY

III. CONCLUSION

Residents in the communities along the IGTS route and the public which travels to this area for enjoyment and recreation in the country environment will make a considerable "investment" in IGTS in terms of the unreimbursed costs that they will bear now and in the future.

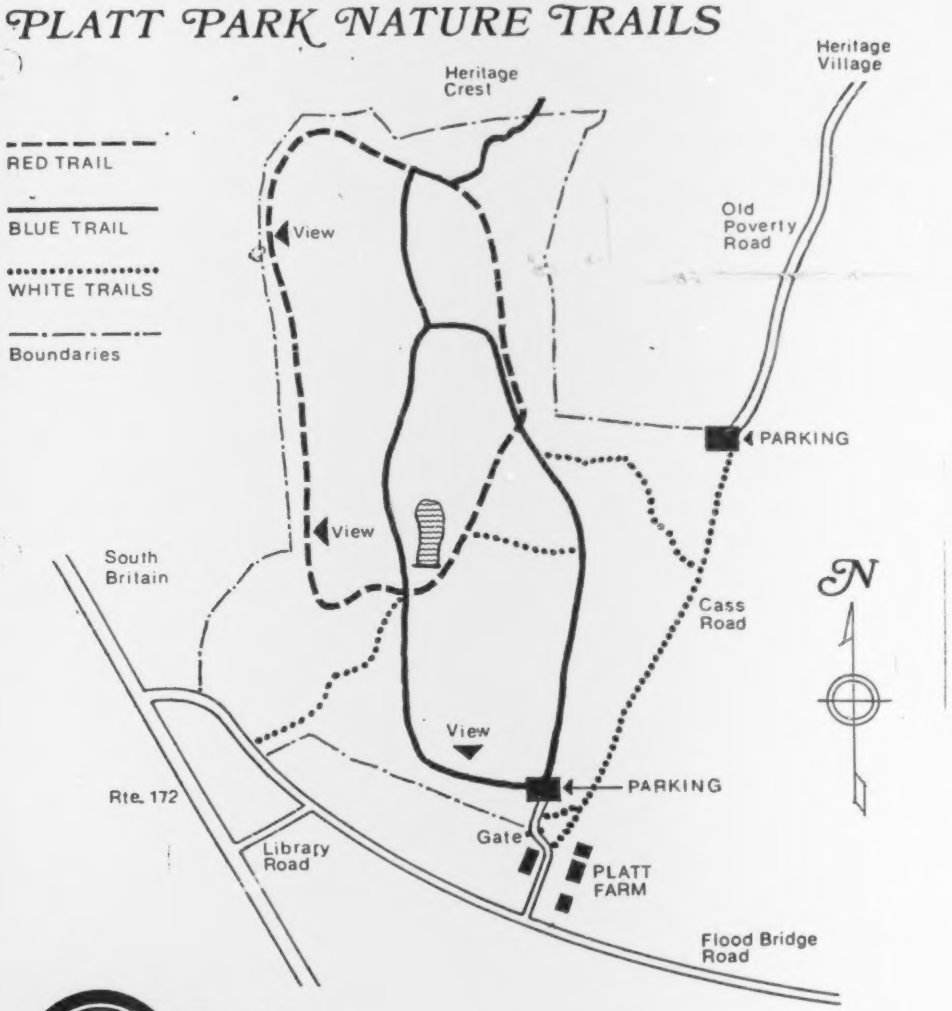
It is therefore critical that these costs be objectively measured, taking into account the irrevocable costs of destroying valuable natural environment, and that the full cost of delivering the energy proposed by IGTS be determined.

IGTS should not be approved if there are or are likely to be alternatives that can supply the Northeast with needed energy at lower total cost -- energy and environmental costs fully considered.

Respectfully submitted for
Southbury Neighbors Against the Pipeline by
Laurel A. Casazza
Laurel A. Casazza, Intervenor

SNAP: COPY

FIGURE 1


PLATT PARK NATURE TRAILS
Heritage Crest
Heritage Village
RED TRAIL
BLUE TRAIL
WHITE TRAILS
Boundaries
View
Old Poverty Road
PARKING
View
South Britain
Cass Road
N
View
PARKING
Rte. 172
Gate
Library Road
PLATT FARM
Flood Bridge Road

Southbury Conservation Commission

SOUTHBURY NEIGHBORS AGAINST THE PIPELINE

6; Pond Brook Road
Newtown Ct. 06470
July 19 1987

The Senate Energy Commission
Newtown High School
Newtown Ct.

Gentlemen

~~I am~~ We are glad to have another opportunity to voice ~~my~~ our opposition to allowing the Iroquois Natural Gas Company to run its pipeline through any part of Newtown. It will leave ugly scars that will always be there.

According to the maps we have seen the proposed route is apt to come across or close to the property owned by my sister, Sarah D. Geiger and myself, approximately 49 acres, extending from Pond Brook Road to Butterfield Road. The value of ourland depends on its natural beauty, the stream the woods the hills; the closer the pipeline comes , the greater willbe our financial loss.

We hope you can and will keep the pipeline away from Newtown altogether.

Sincerely yours

Alexandra Dodd Schultze
Alexandra D. Schultze

Sarah Dodd Geiger

Sarah D. Geiger

Eugene Garriepy
RFD 2 80 Glen Road
Sandy Hook Ct 06482

July 20,1987

The Honorable Lowell Weickert Jr.
United States Senate

Subject: The proposed Iroquois Gas Transmission Pipeline

Dear Senator Weickert;

I, as a member of the Legislative Council here in Newtown, have listened to many residents in the district I represent and they express their concern regarding both short term and long term effects the pipeline would cause in this area.

To some it's a nightmare. For many who's land has already been traversed once by a pipeline the prospect of another is inconceivable. For one lady well into her eighties who's house had to be moved for interstate 84 and now faces the posibility of a pipeline coming through her property, only a feeling of dispare and hopelessness remain.

The immediate environmental impact and the lasting effects that would result from the pipeline have been and continue to be well documented. Issues concerning surface and subsurface water contamination are of vital importance in an area that has no other source of pure water other than an aquifer that already shows signs of being over-taxed. Issues of restricted land use, lost property values and aesthetic degradation can not be put aside as mere inconvenience to be endured by the few.

The questioned most asked is "Why do they want to put another pipeline through here?", and the response should be, an univocal NEED demands additional gas, and that we could all stand to gain from the increased supply. That should be the answer - - - but it isn't.

In the months leading up to this hearing Iroquois has failed to conclusively prove Connecticuts' need for gas in quantities proposed by Iroquois. Based upon the IGTS growth rate of 1.2% we could expect to use only 25% of the projected total available supply by the year 2015!! Certainly this is not urgent need by any stretch of the imagination.

Newtown, like many other towns in this area, is being asked to support an illconceived, highly speculative and grossly disruptive project who's need has not been able to withstand close scrutiny, and because of rule 436 the socalled "fast Tract", we are even denied a basic right of due process.

We of Newtown who lie in the path of this monster, who stand to lose our homes, the beauty and serenity of this beautiful region and way of life, beseech this hearing to do the utmost in reaching a fair and just conclusion of this matter.

thank you

Eugene Garriepy

Eugene Garriepy
Councilman 2nd District

pcTim

State of Connecticut
HOUSE OF REPRESENTATIVES
STATE CAPITOL
HARTFORD, CONN. 06106

REPRESENTATIVE SEAN C. BUTTERLY
SIXTY-EIGHTH DISTRICT

P.O. BOX 714 59 LITCHFIELD ROAD
WATERTOWN, CONNECTICUT 06795
TELEPHONE
CAPITOL: 240-8585
TOLL FREE: 1-800-842-8267

MEMBER
EDUCATION COMMITTEE
GENERAL LAW COMMITTEE

July 22, 1987

The Honorable Lowell P. Weicker, Jr.
United States Senator
Member, Senate Energy Committee
United States Senate
100 Grand Street
Waterbury, CT 06702

RE: Iroquois Natural Gas Pipeline

Dear Senator Weicker:

As the State Representative of Woodbury and most of Watertown, I would like to once again express my opposition to the proposed Iroquois natural gas pipeline.

I renew this opposition even though the new announced "primary route" identified by the gas consortium ostensibly misses most of my district.

We who have opposed the pipeline have consistently rejected a "not in my back yard" approach to this proposal.

In fact, Representative Herskowitz, (R. Southbury), Representative Maddox (R. Bethlehem) and several other legislators spearheaded a resolution against the Iroquois pipeline in the Connecticut General Assembly which memorialized the General Assembly's opposition to Iroquois.

In this effort we sought and received support from many legislators in the southern region of the state including Newtown's M'ae Scnmidle and Stratford's Bob Frankal, the Democratic Majority Leader.

All studies of this proposal, except the DPUC report, question the need of this pipeline. Bipartisan findings along these lines include studies by Congresswomen Johnson and Congressman Rowland, as well as the QED study commissioned by Governor O'Neill.

I know that you will hear many valid technical arguments against this pipeline today expressed by such groups as the Northern Valley Environmental Commission and the Housatonic Valley Association. The environmental considerations are enormous, and by far outweigh the scant evidence of need displayed to date.

In conclusion, Senator Weicker and members of the panel, I wish to remind the Senator of nis comments at the F.E.R.C. hearing in Torrington last October when he referred to a helicopter ride over the proposed pipeline path. Referring to the beautiful landscape to be scarred by this pipeline, you stated, "Chairman Hesse , Connecticut rests its case". As an attorney I could not think of a better closing argument.

I hope your panel and F.E.R.C. will find against this proposal anywhere in our state, and I offer any assistance needed by the federal officials that we in the General Assembly of Connecticut may extend.

Thank you for your consideration of these comments.

Sincerely yours,

Sean C. Butterly

FRIENDS AND NEIGHBORS
OF HISTORIC MERRYALL
c/o Mary Jane Peterson
Barker Road, RFD #1
New Milford, CT 06776
July 25,1987

Hon. Lowell Weicker
225 Russell
Senate Office Building
Washington, D.C. 20005
Attn: Tim Osborne

Dear Senator Weicker;

I request that the following be entered into the record of the Senate Energy Committee hearing on the Iroquois Gas Transmission System proposal held in Newtown, CT on Monday, July 20, 1987.

I am writing on behalf of the Friends and Neighbors of Historic Merryall, a group of 130 members which was organized in January of 1985 in order to preserve farmland, open-space and natural and historic resources in one of the last rural areas of New Milford, a community under intense residential and commercial development pressure at this time.

We have worked closely with the local Land Trust, Weantinoge Heritage Inc., The Housatonic Valley Association and our state Department of Agriculture's farmland preservation program to acheive our goals. To date we have succeeded in permanently protecting 250 acres of forestland, inland wetlands and working agricultural land. Projects in progress would protect another 500 acres.

As an organization involved with resource protection, we are deeply concerned with Iroquios Gas Transmission System's proposed route through Connecticut filed under Order 436 with the F.E.R.C. Unless need is definitely proven for this project, it does not seen reasonable to disrupt the Housatonic, Shepaug and Lake Waramaug watersheds, numerous Land Trust holdings, prime working farmland and archeological and historic resources in Litchfield County and to our south.

More specifically, we object to Alternate 7 and the western extension of the Farmington Lateral for the following reasons:

1)The Farmington Lateral extension in New Milford would cut through Lower Merryall disrupting forestland, working farmland, inland wetland areas (including a waterfowl habitat near the intersection of Merryall and West Meetinghouse Roads where Heron and Egret have been sighted) and the crossing of the West Aspetuck River which has been classified as an AA watercourse by the Connecticut Department of Environmental Protection, and may provide future water supply for the Town of New Milford. The Farmington Lateral would negatively impact the ecology of these areas which we have fought so diligently to protect.

2)The Lateral east of the Merryall District falls within 0.5 mile of the Eliot Pratt Education Center in the Northville District of New Milford. It is a non-profit environmental education center serving the communities of New Milford, Roxbury, Washington, Warren, Kent, Sherman, Bridgewater and Brookfield. Designated as as quasi-public facility by the state, it encompasses buildings, hiking trails and approximately 180 acres of open-space. It is unique in the programs it offers to adults and area school children in this section of Litchfield County. Nearby, the crossing of the East Aspetuck River, classified A and recognized as a significant trout fishery by the State, would also be necessitated by the extension of the Lateral.

Further southeast the Lateral runs through areas of dense residential development before crossing the Washington town line.

3) Alternate 7 and the Lateral extension would directly impact as many as eight quasi-public properties held by The Weantinoge Heritage Land Trust within the Town of New Milford where open-space and recreational areas are diminishing at an alarming rate.

4) The IGTS environmental report lists 38 identified archeological sites within the Township of New Milford, 30 of which are less than a mile from the proposed Alternate 7 route. Included in these are the areas encompassing Fort Hill (Weantinock) and the Great Falls (or Lovers' Leap) which is on the National Register of Historic Places. Weantinock is cited in Samuel Orcutt's definitive Indians of the Housatonic and Naugatuck Valleys, published in 1882, as a settlement of dense population and as the seat of government of Chief Waramaug in the early Eighteenth Century. Once disturbed these historic and archeological resources will be lost for all time.

5) Alternate 7 south of New Milford's village center area cuts through areas of dense residential and commercial development and comes in close proximity to the Hill and Plain grammer school. A pipeline accident in this area of New Milford could have disasterous consequences.

In light of the potential damage to our fragile environment and the potential safety hazards of this project, we ask that:

1) This proposal be taken off the "fast track" so that the issue can be fully explored.

2) That full evidentiary hearings be held in the State of Connecticut on this proposal.

3) If, in fact, need is established for additional gas supplies, that alternate proposals having less disasterous consequences on our environment before the Federal Energy Regulatory Commission be given serious consideration.

Thank you for your concern and attention in this matter.

Sincerely yours,

Mary Jane Peterson

Mary Jane Peterson
Secretary, Friends and Neighbors
of Historic Merryall

34 Old Middle Road
Brookfield, CT. 06804

July 21, 1987

The Honorable Lowell Weicker Jr.
Suite 3A
100 Grand Street
Waterbury, Connecticut

Sub: Iroquois Gas Pipeline Project
Senate Subcommittee Hearing 7/20/87, Newtown, CT

Dear Senator Weicker:

I am a property owner in the Town of Brookfield whose land falls in the path of one of the proposed routes for the Iroquois Gas Pipeline. I was unable to attend the hearing held yesterday in Newtown, Connecticut, however I am strongly opposed to the Iroquois project and would like to voice my concerns for the record.

I have watched the Iroquois project develop with great apprehension and distress. It has been a flawed undertaking from the onset, constantly being revised to combat overwhelming public opposition. Recent changes in preferred routing were obviously accomplished to avoid the less populated, but more influential and affluent areas to the North. Usage targets were altered to show a false user base here in Connecticut, rather than the intended New York market.

There is no question, had it not been for the "fast track" application process now available, this line would have never been proposed. I firmly believe the "fast track" process was intended for small **unopposed** spurs or minor extensions to existing lines. Certainly not for a major **International project**, especially one with such vast public opposition. A project, I might add, that would increase the import/export trade imbalance, while cutting down the use of American produced natural gas.

Over the past three generations Eminent Domain has adversely effected my family on two occasions. I am quite familiar with the personal financial ruin that always follow such proceedings. On both occasions Eminent Domain was evoked for governmental projects for the "public good". However financially disastrous these "undertakings" were, it was understood that the Town or State would benefit. The Iroquios proposal is by no means such a public project.

The awesome power of Eminent Domain was not intended to be granted to a private individual, company, or consortium for the purpose of private profit. The "fast track" process would grant the taking of private lands without the requirement of proving public need. It is bad enough to be forced to give up all you have worked for your entire life, but to be forced to do so for the profit of private individuals is anti-American, at the very least - if not criminal.

The existing application process prior to "fast track" provided some protection for the unsuspecting public from greedy profiteers such as the Iroquois consortium. If Iroquois is allowed to obtain approval under fast track, without being required to prove public need, the right of **Eminent Domain** should and **must be withheld**.

We, the general public, can privately fight the Iroquois project. You within the government should look to protect us from the wrongful granting of Eminent Domain, since we have no other defense against such **governmental** proceedings.

Sincerely yours;

James O Oberndorfer

James O. Oberndorfer

RC Tim

WALKER AND COMPANY • 720 FIFTH AVENUE • NEW YORK, N.Y. 10019
TELEPHONE: 212 CO-5-3632 • CABLE ADDRESS: REKLAWSAM

July 22, 1987

Senator Lowell Weicker, Jr.
Suite 3A
100 Grand Street
Waterbury, CT 06702

Dear Senator Weicker:

As a long-time (37-year) resident of Brookfield, co-founder of the Historical Society and former elected Library Board Chairman, I am writing to express my deep concern over the potentially disruptive impact of the proposed Iroquois Gas Transmission Line.

Far too little is known about the long-term environmental damage that this questionable installation may cause. As owner of 100 acres of undeveloped woodland I rue the aesthetic effect of this pipeline and will do everything I can to support efforts to oppose it.

Hundreds of Brookfield families will be negatively affected by the economic impact of the pipeline. I join them in urging you to question seriously the value to public as well as private interest in permitting Iroquois to proceed. IS IT TRULY NEEDED IN CONNECTICUT?

Sincerely yours,

Samuel S. Walker

Samuel S. Walker

cc: Kenneth Keller

Testimony submitted by Jim Perkins of New Milford at the hearing on the Iroquois Gas Transmission Systems' pipeline proposal held Monday, July 20, 1987, by Senator Lowell Weicker at the Newtown High School.

I wish to express my concern and my objection to the Iroquois Gas Transmission Systems Pipeline proposal.

Both my concern and my objection are due in part because of the brusque and assumptive manner in which the Iroquois group has proceeded thus far. In part because of the devastating affect the pipeline would have upon our environment. In part because the Iroquois group has not demonstrated the need in our area for the natural gas that would be transported here. And in part because the path of Alternative 7 passes through my house.

My concern and objection, I think you will agree, are real.

Some years ago I spent an evening with the late Robert Moses, the renowned city planner of New York, former commissioner of the Port Authority and the builder of the Triborough, Whitestone, George Washington and Throgs Neck Bridges. The builder of Jones Beach. The builder of LaGuardia and Kennedy Airports. The builder of the East side and the West side highways. He more than anyone else determined how New York City lives and works today.

The subject under discussion was a proposed bridge, never built, that would have crossed Long Island Sound from Douglaston, Queens, to Rye, New York. Citizens on both sides of the Sound were outraged. Especially those whose homes would be displaced by the construction. Mr. Moses waved aside their concerns. "The needs of the few," he said matter-of-factly, "must be sacrificed to accommodate the needs of the many."

What Mr. Moses did not say, and what in time became so clear, was that the expendable few were the less-well-off and the needs most often served were those of the well-to-do. The eleven mile loop of the Grand Central Parkway around--not through--the estates of Long Island's richest families attests to that. Jones Beach, with approach roads bridged so low that buses could not travel them, attests to that also. And so, too, does the grotesque bend of the western end of the Triborough Bridge, swung north to appease a few powerful landowners and thereafter creating a daily driving nightmare for thousands of motorists.

I think we have seen the Iroquois Gas Transmission System practicing the same kind of selectivity: pitting the landed against the wage-earner, putting the burden of resistance on those least able to mount it and satisfying the needs of the rich at the expense of the not-so-rich.

But there is a more important lesson to be learned from the legacy of Robert Moses. Philosophically, his position was sound: New York City's growth--both as a residential and business community--could only be accommodated and sustained by a planned transportation system.

Similarly, I believe the Iroquois Gas Transmission System to be philosophically correct: the energy needs of the area will increase and we must not only plan to accommodate the need, we must also lessen our dependence on unstable sources of supply.

Philosophically, there is a parallel, but I am afraid that conceptually there is also a parallel.

Having promoted a convincing funding philosophy, Robert Moses then blundered ahead with countless construction projects to provide pathways not for mass transportation but for the automobile.

Today, those pathways are clogged end to end. The city is pollution and traffic bound. Meanwhile, its sixty year old mass transit system is in disrepair and decay.

And neither the families displaced by Mr. Moses nor the families to be served by Mr. Moses have benefited. The nightmarish miasma of New York City today is mute evidence of brusque and assumptive power used to promote the wrong solution.

What the lesson of New York City tells us is that if indeed the presumption is correct that our energy needs will increase, then we must challenge the Iroquois Gas Transmission Systems' pipeline plan not only on the grounds of its environmental impact, not only on the grounds of its ill-mannered and possibly illegal demand for an expedited process, but also on the grounds of whether Canadian gas piped into our area by indifferent, bureaucratically-driven utilities is conceptually the right solution.

There are other solutions: coal, oil, nuclear, hydro-electric, solar, conservation, and so on. How we use these energy resources in the future should be part of a planning process, not a reactive process. Right now, we are simply reacting. We are reacting to the Iroquois Gas Transmission System, put in a position of having to say yes or no, without having an alternative.

Connecticut should have a plan, indeed the entire region should have a plan, one that recognizes the vested interests of the public utilities as well as those of the private sector. A plan that deals not with any one of those interests, but instead deals with the energy need and how to satisfy it.

I propose, thus, that the Federal Energy Resources Commission reject the Iroquois Gas Transmission System's proposal. That the Federal Energy Resources Commission create a regional subcommission to detail and define the area's long term energy needs, both residential and commercial; that the results of the subcommission's study be given to the vested interests, both public and private; and that several solutions to satisfy the longer term energy needs then be presented to the Federal Energy Resources Commission for its review, assessment and eventual approval.

If the Iroquois Gas Transmission System is unwilling to have its pipeline proposal shelved, and if the Federal Energy Resources Commission is unwilling to listen to what Connecticut is saying, then the state itself must stop this brusque and assumptive nonsense in its tracks. The mechanics to do so lie in the non-preemptible authority of the Connecticut Department of Environmental Protection. And if we can't address the problem, and continue instead to argue the solution, then we ought to invoke that authority.

I am not a disinterested observer. I have walked much of the land where Alternative 7 proposes to pass through the north end of New Milford. Small farms, quiet, undisturbed streams, ancient trees, centuries old red oaks and sugar maples, a forest bed rich, deep, alive, nurturing and life-giving. I think of the pipeline construction crews coming through that land, the ten-wheelers, the bulldozing and the trenching, removing the life from the land, leaving it barren, humiliated and unfulfilled. And I think of that and I weep, for it will never be the same again.

James N. Perkins

Stilson Hill Road
New Milford, CT 06776

July 22, 1987

Attorney General Joseph I. Lieberman
30 Trinity Street
Hartford, Conn. 06106

Dear Mr. Lieberman:

As a follow up to your testimony at the evidentiary hearing held by Senator Weicker on the subject of the Iroquois Gas Transmission System's pipeline proposal, I urge you to use your good offices to put upon the DPUC the burden of defining 1. the energy needs of the state; and 2. how those needs may be met by the several sources of energy, i.e. nuclear, fossil fuel, hydro-electric, coal, conservation, etc.

The State of Connecticut must define its needs and take a proactive position rather than a reactive one as it has presently been doing in the case of the Iroquois Gas Transmission System.

Among the several points I made my in testimony, which you were not on hand to hear, there is one I would like to call to your particular attention: Can a corporation, consortium, partnership or other legal business entity that is 50% owned by foreign interests be allowed the privilege of eminent domain? Your office, it would seem, is best positioned to answer this.

cont'd...

James N. Perkins

Mr. Joseph I. Lieberman
Page 2
July 22, 1987

Another item your office should address is ascertaining the non-preemptible authorities of the State of Connecticut. The former commissioner of the Department of Environmental Protection, Stanley J. Pac, informed me that his office would have to certify the Iroquois Gas Transmission System's plan specifically as it related to Connecticut's coastal management plan. In his opinion, the DEP authority was non-preemptible. Are there such other non-preemptible authorities? And how can we use them to manage our own destiny rather than letting it fall to the Federal Energy Resources Commission?

Those of us who question the wisdom of the pipeline proposal appreciate your continuing efforts.

Sincerely,

JNP/mg
294

cc: Mr. Robert Moeller
Housatonic Valley Association

Representative John Rowland

Representative Nancy Johnson

Senator Lowell P. Weicker, Jr.

James N. Perkins

Stilson Hill Road
New Milford, CT 06776

July 22, 1987

Representative John Rowland
135 Grand Street
Waterbury, CT 06702

Dear Representative Rowland:

Thanks for your wise and concerned testimony at Senator Weicker's evidentiary hearing. Your position on the pipeline has been intelligent and, for those who are in agreement with it, fortunately unwavering.

One of the questions on the table is how does Connecticut take charge of its own destiny? And there are two possible answers to that which I think you ought to give some thought to.

Answer number one lies in the answer to still another question, which is how does a consortium 50% owned by foreign interests get the privilege of eminent domain?

The second answer may lie in the non-preemptible authority of the Connecticut Department of Environmental Protection. To my knowledge the DEP must certify the Iroquois proposal specifically to its adherence to Connecticut's Coastal Management Program.

cont'd...

Representative John Rowland
Page 2
July 22, 1987

I urge you to explore these two approaches, for if indeed they represent weaponry of a kind, then you and your constituency can take an active, aggressive position rather than being forced by the Iroquois group into a reactive, defensive position.

Thank you for your good work.

Sincerely,

JNP/mg
295

cc: Mr. Robert Moeller
Housatonic Valley Association

Representative Nancy Johnson

Senator Lowell P. Weicker, Jr.

DCTim

James N. Perkins

Stilson Hill Road
New Milford, CT 06776

July 10, 1987

Senator Lowell P. Weicker, Jr.
100 Grand Street
Waterbury, CT 06702

Re: Iroquois Gas Transmission System

Dear Senator Weicker:

To your many accomplishments you might well add " watchdog."

Those of us who revere our state and our land, our heritage, our natural environment and our way of life, applaud your efforts to keep the Iroquois Gas Transmission System from bulldogging its way through the FERC process.

The big utilities should not have their way with the citizens of Connecticut.

Keep up the good work!

Sincerely,

James N. Perkins

JNP/mg
276

WEANTINOGE HERITAGE, INC.
P.O. BOX 242 • NEW MILFORD • CONNECTICUT • 06776

Howard
Could you please
include this in the record
Thanks, Tim

July 29, 1987

The Honorable Senator Lowell Weicker
Attn: Tim Obsborne
225 Russell
Senate Office Building
Washington, D.C. 20005

Dear Senator Weicker:

Although we were not among those able to speak at your recent meeting of the Federal Energy Committee held in Newtown, Connecticut, as President of Weantinoge Heritage I wish to go on record as being strongly opposed to the alternate #7 proposal for the Iroquois Pipeline. The current situation was reviewed further with our Board of Directors yesterday which voted unanimously to express our deep concern to you in the most forceful way available to us. In this connection, I enclose a copy of a statement that I presented at a Stop the Pipeline Meeting on 20 January 1987 which summarizes our situation and our concern.

We appreciate your interest in attempting to explore the Iroquois Pipeline situation in all its aspects and wish to go on record again as being deeply opposed to the present alternate #7 proposal and also the possibility of the Spur proposal which would impinge on a substantial number of our properties.

We hope you will do everything in your power to forestall approval of this pipeline project. Thank you for your continuing interest and also for any help that you can give to bring this matter to an environmentally satisfactory conclusion.

Sincerely,

Charles B. Barlow

Charles B. Barlow
President

CBB:ts
Enc.

WEANTINOGE HERITAGE, INC.
P.O. BOX 242 - NEW MILFORD - CONNECTICUT - 06776

IROQUOIS PIPELINE STATEMENT
presented at
Stop the Pipeline Meeting
January 20, 1987

We are the largest membership land trust in Connecticut. Iroquois Pipeline proposal AH7A would seriously impact our greatest concentration of nature preserves. The Farmington lateral alternative will either pass through or close enough to damage water tables, aesthetics, and vegetative composition of four and possibly five preserves in New Milford and Roxbury. In addition, the north-south mainline through New Milford and Brookfield will impact one and possibly three of our preserves. Our network of preserves in northern New Milford has insured a bare minimum of unbroken woodland ranges for several species that have disappeared elsewhere in the suburbanized Northeast. Bobcats and goshawks are the best examples; and, even after construction is complete, increased access along the pipeline would be the 'straw that broke the camel's back' for these species (which require about one thousand acres undisturbed to raise a family).

Clearing required for line construction would open up the forest canopy or edge enough to allow the invasion of a variety of undesirable alien species, most notably multiflora rose, barberry, and bittersweet. With our non-profit organization's limited funds, preventing these aggressive obnoxious weeds from pushing out native vegetation would become almost impossible. We already spend much time and money to prevent damage by off-road vehicles; this task would be made more difficult by pipeline clearing.

Affected Preserves:

(Farmington Lateral Alternative)
- Longobardo (SE of Gaylordsville) Sanctuary
- Long Mountain (possibly two different preserves)
- Frederick March Memorial Preserve (east of the West Aspetuck River)
- Maurice Metzler Preserve (adjacent Steeprock Reservation in Roxbury)

WEANTINOGE HERITAGE, INC.
P.O. BOX 242 - NEW MILFORD - CONNECTICUT - 06776

(North-South Mainline)
    Morrisey Preserve (Old
      Sherman-Gaylordsville Road)
    Possibly the Still River Preserve

  (Original Iroquois proposal through Sharon,
   Warren, etc.)
    Corwin Sanctuary (Ellsworth section of
      Sharon)
    Milton Preserve (Painter Hill in Washington)

All but two of the above preserves are in areas of shallow bedrock. Blasting will change water tables and drainage patterns enough to disrupt tree root patterns that have been established and stable for eighty years or more. This will result in instability in the competitive balance in the forest ecosystem causing long-term increased mortality with more dry-ground species moving in (most of which are less productive of biomass and wildlife food).

Weantinoge Heritage, Inc. was established in 1965 and is now in its twenty second year of operation. It has over seventy preserves covering in excess of 1500 acres under its protection located in ten towns of Northwestern Connecticut. These include 1400 acres owned outright by the organization and the balance in conservation easements. As our most important mandate from our Donors when accepting gifts of land and easements with environmental protective convenants, we undertake to hold and protect these properties in perpetuity in their natural state. It would appear that the Iroquois Pipeline Project would seriously damage the natural environment of a number of the properties that it is our objective and our duty to protect. We wish to go on record to express our deep concern.

Prepared by John W. McNeely
Land Manager and a Director
Weantinoge Heritage, Inc.
        and
Charles B. Barlow
President

20 January 1987

Eliot Pratt
Education Center
163 Papermill Road, New Milford, Connecticut 06776 (203) 355-3137

July 27, 1987

Senator Lowell Weicker
225 Russell Senate Office Building
Washington, D.C. 20005

Dear Senator Weicker,

We would like the following testimony entered in the proceedings of the Senate Energy Committee hearing held in Newtown, Connecticut on July 21, 1987 concerning the Iroquois Pipeline proposed for this area.

The Board of Directors and the staff of the Eliot Pratt Education Center are concerned about the impact of the proposed Farmington Lateral Alternative Pipeline on the natural environment around Mt. Tom, the highest point in New Milford. This area is named in the New Milford Plan of Development as one of several natural areas to be preserved. It is approximately one-half mile to the north of the proposed pipeline near the Merryall District of New Milford.

Although the pipeline is shown following an existing powerline right-of-way, this section crosses through many parcels of natural woodland which together form a continuous natural preserve all the way to the top of Mt. Tom. Because of this, there are bobcats, great horned owls, and other forms of wildlife needing a large territory living on the mountain.

The Eliot Pratt Education Center manages 180 acres of this crucial land on the east face of Mt. Tom as well as part of the ridge to the north and south. Weantinoge Heritage Land Trust has an adjoining 50 acre piece on top of the mountain. All of this land is open to the general public for nature study and passive recreation such as hiking.

The Eliot Pratt Education Center is an important resource for New Milford. Using our land as our classroom, we offer year round programs teaching children and adults about their natural environment. We have over 450 members and up to 10,000 yearly visitors to our site. The Center's hikes to the bobcat caves, owl prowls, and nature discovery walks are exciting events because we often find signs of these and other animals living in this protected wildlife area.

The proposed pipeline will also cross the East Aspetuck River which follows the base of Mt. Tom and passes through the Center one-half mile upstream from the pipeline crossing. This river is noted in the New Milford Plan of Development as a scenic waterway and significant trout stream with a Class A designation.

Designated a National Environmental Study Area by the U.S. Dept. of the Interior

Eliot Pratt Education Center

163 Papermill Road, New Milford, Connecticut 06776 (203) 355-3137

As New Milford becomes more and more developed we are fortunate to have these large tracts of land available for the protection of wildlife, nature study, and recreation. We are concerned about any intrusion on this wild land. We trust you will take these comments into consideration as you gather testimony about the proposed pipeline.

Sincerely,

Catherine S Setterlin

Catherine S. Setterlin
Executive Director

Designated a National Environmental Study Area by the U.S. Dep of the Interior